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Epidemiologic Notes and Reports

Outbreak of Severe Dermatitis among Orange Pickers — California

In May 1986, a dermatitis outbreak occurred among orange pickers employed by a packer in Tulare County, California. The Worker Health and Safety Branch of the California Department of Food and Agriculture (CDFA) notified the California Department of Health Services of the outbreak on May 12 after it had been reported by the Tulare County Agricultural Commissioner's office.

Physicians for 114 (58%) of the 198 orange pickers filed Pesticide Illness Reports (PIRs) for pesticide-induced dermatitis (PIRs are required in California for cases of suspected pesticide illness and are considered to represent an official case count). Onset of dermatitis occurred between April 30 and May 9, 1986 (Figure 1), following exposures to OMITE-CR* (Uniroyal Chemical Co.) beginning April 26. Dermatitis incidence rates for each of six work crews ranged from 23% (6/26) to as high as 78% (28/36).

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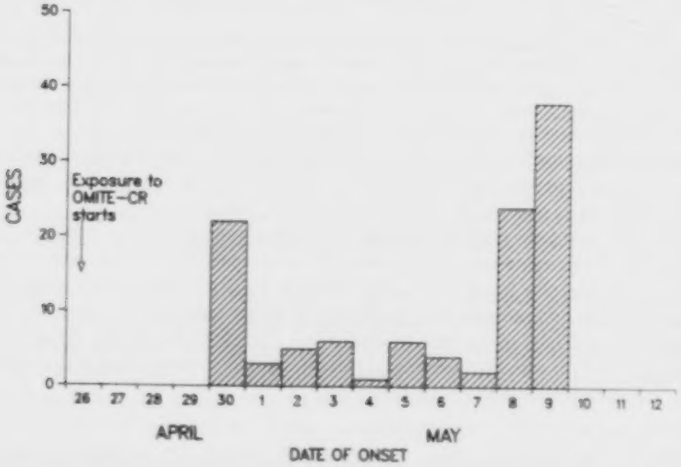
*Use of trade names is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.

FIGURE 1. Dermatitis outbreak among orange pickers, by date of onset — Tulare County, California, April 26-May 9, 1986



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Dermatitis – Continued

Additional investigation included on-site observations and interviews with three of the six work crews (88 workers), collection of spraying and work histories for January 1-May 12 relating to all 80 orchards harvested by the crews, and leaf residue degradation data. On-site observations revealed that the orange pickers frequently leaned into dense foliage to harvest oranges; thus, direct contact with foliage plus possible exposure to pesticide residue occurred. The interviews revealed that the dermatitis occurred commonly in the exposed areas of the neck (81%) and the chest (42%). Most of the pickers reported that dermatitis started with burning, redness, and itching. In many cases, the lesion progressed to small papules, vesicles with weeping and crusting, exfoliation, and hyperpigmentation. One-third of the interviewed workers reported exfoliation, indicating severe dermatitis. Thirty-four percent reported eye irritation, for which 8% received medical treatment.

The Tulare County Agricultural Commissioner considered the miticide OMITE-CR the likely cause of the dermatitis, providing a working hypothesis. An analysis based on the interviews, PIR reports, and leaf residue sampling information concluded: (1) no cases of dermatitis occurred in the interval immediately before the harvesting of fields sprayed with OMITE-CR; (2) the highest correlation (*1*)[†] in a predicted direction was between residue-hours of OMITE-CR (a measure combining estimated leaf residue multiplied by hours spent harvesting) and dermatitis ($R_s = 0.60$). Simple cumulative hours of OMITE-CR exposure produced a slightly lower correlation ($R_s = 0.54$). No positive correlation was found between cumulative hours of exposure to CARZOL[*] (NOR-AM), the only other pesticide used extensively in the orchards, and dermatitis ($R_s = -0.02$). A measure of "OMITE-CR + CARZOL" interaction correlated less highly with dermatitis ($R_s = 0.37$) than did the OMITE-CR exposure alone. Cumulative hours of exposure to other pesticides correlated inversely with dermatitis ($R_s = -0.71$); and (3) no violations of preharvest intervals (the interval between last application and harvest) or application levels (lbs/acre) were noted for any of the pesticides used on the orchards.

The workers were treated by local physicians, and symptoms improved. The county instituted an emergency 14-day reentry interval for fields with OMITE-CR, extending the California label instructions (1-day reentry, 7-day preharvest). This reentry interval was later extended to 28 days, then to 35 days. Subsequently, the manufacturer withdrew the California registration for OMITE-CR.

Reported by C Churchill, Agricultural Commissioner, and staff, Tulare County Agriculture Dept, J Pendleton, MD, Health Officer, and staff, Tulare County Health Dept, K Maddy, DVM, and staff, Worker Health and Safety Br, California Dept of Food and Agriculture, RG Ames, PhD, JB Knaak, PhD, R Jackson, MD, Hazard Evaluation Section, California Dept of Health Svcs, Berkeley, KW Kizer, MD, Director, California Dept of Health Svcs, Sacramento; Div of Field Svcs, Epidemiology Program Office, CDC.

Editorial Note: This is the largest pesticide-induced dermatitis outbreak recorded in California. Because that state requires pesticide illness reports, the outbreak and its causal factors were quickly identified so that appropriate interventions could be made.

OMITE-CR, the pesticide identified in the dermatitis outbreak, is a noncholinesterase-inhibiting miticide of low systemic toxicity but with known dermal irritation qualities. Its active ingredient is 30% propargite, 2-[4-(1,1-dimethylethyl)phenoxy] cyclohexyl-2-propynyl sulfite (*2*). The manufacturer had recently reformulated it to prevent leaf burn in citrus trees by coating the propargite granules in an inert ingredient that apparently slowed degradation. The CDFA continued the 7-day preharvest interval for the new formulation that was previously established for the earlier formulation (OMITE-30W).

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[*] Use of trade names is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.

[†] Spearman rank-order correlation coefficients, R_s, were used to correlate indexes of exposure and dermatitis outcome.

Dermatitis — Continued

Next to sulfur, propargite is the second most frequently reported pesticide in the California PIRS as a probable cause of dermatitis among agricultural workers. During a 12-year period from 1974 through 1985, 506 cases of dermatitis associated with exposure to propargite were recorded, compared with 677 for sulfur (*3*). Certain California counties require a 3-day field reentry interval for sulfur. For one other pesticide, anilazine (DYRENE*), California requires a 48-hour reentry interval based on dermal effects.

Protective clothing is usually neither practical nor effective for preventing skin exposure to pesticides in field crop workers. Impermeable clothing promotes the potential for heat stress, and monitoring skin exposure by dermal patches beneath permeable clothing has demonstrated that substantial skin exposure to residues still occurs. The most effective strategy for control is regulation through establishment of safe reentry intervals for skin exposure. The investigation reported above is one of the few instances where residue levels were sufficiently documented at the time of the dermatitis outbreak to establish a safe reentry level.

This outbreak underscores the potential of inert ingredients to compromise the safety and health of the worker and the need for prompt reporting and investigation of occupational illness episodes.

References

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Tuberculosis among Migrant Farm Workers — Virginia

The Commonwealth of Virginia annually experiences an influx of migrant farm workers to its Eastern Shore and northwestern regions. Tuberculosis is an important health problem among these migrant workers, but organized efforts to detect, treat, and prevent disease in this group are difficult to establish and maintain. Workers start arriving in early May, peak in number in mid-July, and move on to other states or return to their winter quarters (usually Florida or Texas) by late October or early November. The transient nature of their occupation and the long duration of tuberculosis treatment make it difficult for state and local health departments to assure patient compliance with screening programs, preventive therapy, and chemotherapy for disease. The absence of an interstate tracking system and the difficulties associated with ascertaining workers' itineraries in advance further complicate the attempts of migrant crews, migrant organizations, and public health workers to insure appropriate follow-up.

To address these problems, health-care providers in eastern and northwestern Virginia collaborated in a project to identify migrant farm workers who (1) have tuberculosis and need treatment, (2) are infected and need evaluation for preventive treatment, or (3) have been exposed to an infectious person and need to be examined for infection and disease. In addition, the program was designed to unify and intensify follow-up efforts.

During the summers of 1984 and 1985, tuberculin-testing clinics were established in migrant camps throughout the Eastern Shore and, in 1985, northwestern Virginia. Services were provided during nonwork hours. Participation was voluntary, and considerable effort was made to obtain reliable follow-up information (travel itineraries, winter addresses, relatives' addresses). Clinics were staffed by physicians, field epidemiologists, and x-ray techni-

Tuberculosis — Continued

cians from the Virginia Department of Health Tuberculosis Control Program and by local public health nurses. Local and state migrant-advocacy groups supplied some transportation and interpretive services. Participants received a Mantoux tuberculin skin test, which was interpreted after 48 hours. On the night of the reading, workers with significant reactions (10-mm induration or greater) were given a chest radiograph and examined by a clinician. If indicated, a bacteriologic specimen was also obtained.

On the Eastern Shore, 496 (13%) of the estimated 3,962 migrant farm workers were screened in 1984, and 632 (21%) of the estimated 3,000 workers were screened in 1985. Twelve persons with culture-proven tuberculosis were identified and had treatment initiated in the 2 years of this program, compared with nine cases in the previous 2 years. None of the 12 patients had come to the clinics seeking medical care.

In addition to the 12 verified cases, 486 other workers had reactive tuberculin tests. The prevalence of tuberculous infection was highest among Haitian workers and lowest among non-Hispanic whites (Table 1). An analysis of age-specific infection rates for the 2-year period revealed a prevalence of infection of 2% for the 204 children under 15 years old, 49% for the 517 workers 15-34 years old, and 59% for the 408 persons 35 years of age or older.

The screening program in northwestern Virginia in 1985 reached 135 (5%) of the estimated 3,000 migrant farm workers and yielded no cases of tuberculosis. It did, however, reveal a similar rate of infection (41%).

Approximately 400 of the 555 tuberculin reactors identified in the two screening programs were started on preventive therapy with isoniazid. The results of tuberculin testing and treatment schedules were recorded on the individual worker's health card. Similar information was forwarded to local health departments of the areas on the worker's itinerary at his/her winter quarters to assure completion of treatment. Workers were urged to report to any state health clinic, show the health card, and request follow-up evaluation and/or additional medication.

This program is being expanded in 1986 in an attempt to serve larger numbers of persons in this high-risk population.

Reported by CF Wingo, MD, Tuberculosis Control Program, B Borgstrom, Eastern Shore Health District, GB Miller, Jr, MD, State Epidemiologist, Virginia State Dept of Health; Div of Tuberculosis Control, Center for Prevention Svcs, CDC.

Editorial Note: The national prevalence of tuberculosis and tuberculous infection of migrant farm workers is not known, and additional surveys should be conducted in other areas. In the Virginia screening program, Hispanics, persons from Haiti, and other blacks accounted for

TABLE 1. Results of tuberculin skin testing among migrant farm workers, by race/ethnic group — Eastern Shore, Virginia, 1984-1985

Race/ethnic group	1984				1985			
	No. tested and read	Tuberculin reactors (%)		Verified cases	No. tested and read	Tuberculin reactors (%)		Verified cases
Black, non-Hispanic/ non-Haitian	222	93	(41.9)	6	265	117	(44.2)	2
Haitian	107	74	(69.2)	2	242	157	(64.9)	1
Hispanic	101	25	(24.8)	0	113	29	(25.7)	0
White, non-Hispanic	66	1	(1.5)	0	13	2	(15.4)	1
Total	**496**	**193**	**(38.9)**	**8**	**633**	**305**	**(48.2)**	**4**

Tuberculosis — Continued

83% of the migrant farm workers, and these population groups are known to have high rates of tuberculosis nationally. For example, in 1980, the case rate per 100,000 population for non-Hispanic blacks was 32.3, and for Hispanics, 22.7, compared with 7.8 for non-Hispanic whites (*1*). A survey among persons of Haitian origin in Florida in 1980 and 1981 revealed a prevalence rate of 650/100,000 population (*2*).

Foreign-born persons in this screening program were primarily from Haiti. Previous recommendations have emphasized the importance of screening persons from all countries with high rates of tuberculosis (*3*).

The 12 cases of tuberculosis identified on the Eastern Shore in the small group that was screened represented a prevalence rate of 202/100,000 population for 1984 and 133/100,000 population for 1985. These rates were calculated with the use of the estimated migrant population as the denominator and assume that all cases of tuberculosis in this target group were discovered through the screening program. The actual rates of disease may, in fact, have been higher. Although the numerators are small, prevalence rates among these workers are 10-20 times greater than the national incidence rate of 9.4/100,000 for 1985 (*4*). (The incidence and prevalence of tuberculosis are approximately equivalent in the United States.)

The prevalence of tuberculous infection indicated by significant skin-test reactions is remarkably higher among these migrant farm workers than among other groups known to have a very high risk of acquiring tuberculous infection. Among close contacts of infectious persons with tuberculosis in the United States, the infection rate for 1984 was 25% (*4*); in a screening program of 11,746 Southeast Asian refugees who were tuberculin skin-tested between 1979 and 1982, the prevalence of significant reactions was 35% (*5*). The occurrence of tuberculous infection among migrant children under 15 years of age indicates that transmission is continuing to occur in the community. The much higher prevalence of infection among adults suggests the possibility that transmission may be associated with the crowded living conditions shared only by the adult migrant farm workers.

The results of this screening program demonstrate the value of identifying high-risk populations that may benefit from tuberculin screening. Moreover, it illustrates two purposes of screening persons with the Mantoux tuberculin skin test. The first is to identify patients with tuberculosis who are potentially infectious and require multiple-drug therapy. However, because of the possibility of false-negative skin tests in persons with extensive disease, further tests, such as a sputum smear and culture and a chest radiograph, should be performed on any person in whom pulmonary tuberculosis is suspected. The second purpose is to identify asymptomatic persons who are infected with the tubercule bacillus. Such persons constitute a reservoir of persons at high risk of developing clinical disease and should be evaluated for preventive therapy. The main purpose of identifying persons with significant skin-test reactions who are not yet clinically ill is to evaluate such persons for preventive therapy. Previous recommendations have suggested that migrant farm workers should be screened and placed on preventive therapy only in areas where follow-up can be assured (*6*).

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Current Trends

Influenza — United States, 1985-1986 Season

The 1985-1986 influenza B epidemic that peaked in February 1986 was the largest influenza B epidemic in the United States since the 1968-1969 influenza season. It was caused primarily by virus strains that were antigenically distinct from preceding strains. Large numbers of outbreaks occurred in schools, and many adults were also affected. Influenza A(H3N2) viruses also circulated and were isolated with about one-third the frequency of influenza B. However, type A(H3N2) was the predominant influenza virus isolated from persons over 64 years old. Type A(H1N1) virus was rarely isolated. Surveillance data from 121 cities indicated that excess pneumonia and influenza (P&I) mortality occurred during the epidemic, although to a lesser extent than during the previous season. Most of the P&I mortality occurred in the over-64-year age group, from which type A(H3N2) virus was most frequently isolated. Some sporadic cases and a few small clusters of deaths due to myocarditis or other conditions producing a toxic-shock-like syndrome were reported among previously healthy children and adults in association with influenza B outbreaks (*1*).

(Continued on page 475)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	29th Week Ending			Cumulative, 29th Week Ending		
	July 19, 1986	July 20, 1985	Median 1981-1985	July 19, 1986	July 20, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	191	141	N	6,777	4,098	N
Aseptic meningitis	271	240	259	3,105	2,806	2,855
Encephalitis: Primary (arthropod-borne & unspec.)	24	26	34	451	539	539
Post-infectious	2	4	2	58	81	58
Gonorrhea: Civilian	17,415	19,802	19,802	463,776	450,758	487,510
Military	393	287	418	8,704	10,152	13,180
Hepatitis: Type A	406	419	419	11,977	11,830	11,830
Type B	555	567	477	14,070	13,914	12,970
Non A, Non B	79	62	N	1,950	2,273	N
Unspecified	79	118	165	2,611	3,145	3,974
Legionellosis	12	19	N	323	380	N
Leprosy	5	2	6	154	209	145
Malaria	32	22	16	487	498	498
Measles: Total*	145	59	59	4,427	2,084	2,062
Indigenous	138	52	N	4,209	1,762	N
Imported	7	7	N	218	322	N
Meningococcal infections: Total	34	37	43	1,589	1,514	1,803
Civilian	34	37	43	1,587	1,508	1,799
Military	-	-	-	2	6	8
Mumps	96	32	40	2,710	2,004	2,260
Pertussis	45	58	46	1,412	1,026	1,026
Rubella (German measles)	12	19	19	324	411	711
Syphilis (Primary & Secondary): Civilian	413	551	639	13,844	13,821	16,596
Military	6	3	8	99	99	217
Toxic Shock syndrome	9	3	N	195	217	N
Tuberculosis	442	516	516	11,684	11,538	12,710
Tularemia	1	4	12	94	90	120
Typhoid fever	4	3	4	147	170	201
Typhus fever, tick-borne (RMSF)	48	31	60	350	329	541
Rabies, animal	88	129	128	3,040	2,892	3,543

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-		
Botulism: Foodborne	5	Leptospirosis	20
Infant (Utah 1)	28	Plague	2
Other	1	Poliomyelitis, Paralytic	-
Brucellosis (Tex. 1, Calif. 1)	37	Psittacosis (N.C. 1, Ga. 1, La. 1, N.Mex. 2, Wash. 1)	50
Cholera	-	Rabies, human	-
Congenital rubella syndrome	2	Tetanus (Md. 1)	30
Congenital syphilis, ages < 1 year	11	Trichinosis	20
Diphtheria	-	Typhus fever, flea-borne (endemic, murine)	22

*Three of the 145 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending July 19, 1986 and July 20, 1985 (29th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	6,777	271	451	58	463,776	450,758	406	555	79	79	12	154
NEW ENGLAND	291	9	14	2	10,922	13,128	7	26	1	9	-	6
Maine	12	2	-	-	500	574	1	3	-	-	-	-
N.H.	6	2	2	-	274	302	-	-	-	-	-	-
Vt.	2	-	2	1	149	163	-	1	-	-	-	-
Mass.	164	4	3	-	4,595	4,986	3	12	1	9	-	6
R.I.	18	-	-	-	924	1,015	-	-	-	-	-	-
Conn.	89	1	7	1	4,480	6,088	3	10	-	-	-	
MID. ATLANTIC	2,621	36	62	6	78,563	69,446	18	40	5	15	-	11
Upstate N.Y.	238	9	21	4	9,373	8,980	6	11	1	-	-	1
N.Y. City	1,762	9	14	-	46,425	35,676	1	-	-	14	-	9
N.J.	440	17	10	-	10,062	10,555	3	14	1	1	-	-
Pa.	181	1	17	2	12,703	14,235	8	15	3	-	-	1
E.N. CENTRAL	436	55	107	8	61,314	63,269	15	59	6	3	6	4
Ohio	100	24	33	2	15,683	16,009	7	38	3	-	2	-
Ind.	41	12	21	3	6,723	6,398	2	7	-	2	3	-
Ill.	206	9	23	2	17,197	17,446	3	1	-	-	-	3
Mich.	71	10	26	1	19,139	17,652	3	13	3	1	1	1
Wis.	18	-	4	-	2,572	5,764	-	-	-	-	-	-
W.N. CENTRAL	125	22	11	8	20,407	21,892	11	21	3	-	2	2
Minn.	47	2	7	-	2,858	3,081	2	2	-	-	-	1
Iowa	10	-	4	-	2,046	2,325	1	2	-	-	-	-
Mo.	44	7	-	-	10,325	10,430	4	11	3	-	1	-
N. Dak.	2	-	-	-	179	149	-	-	-	-	-	-
S. Dak.	1	3	-	-	419	406	-	3	-	-	-	-
Nebr.	5	9	-	1	1,505	1,998	-	2	-	-	1	-
Kans.	16	1	-	7	3,076	3,503	4	1	-	-	-	1
S. ATLANTIC	861	52	62	19	115,969	97,558	39	116	17	8	1	1
Del.	14	1	4	-	1,923	2,219	2	-	1	-	-	-
Md.	99	6	17	-	14,160	15,858	6	9	-	-	-	-
D.C.	119	-	-	-	9,096	8,184	-	2	-	-	-	-
Va.	92	4	21	1	9,837	10,025	2	12	-	1	1	1
W. Va.	4	1	10	-	1,260	1,321	1	3	1	-	-	-
N.C.	39	15	8	1	18,679	18,489	-	10	-	-	-	-
S.C.	21	-	-	-	10,734	11,902	2	19	4	3	-	-
Ga.	138	12	-	1	15,862	-	2	22	3	-	-	-
Fla.	335	13	2	16	34,418	29,560	24	39	8	4	-	-
E.S. CENTRAL	95	15	29	3	38,272	39,250	4	28	2	2	1	1
Ky.	18	1	11	1	4,290	4,466	2	10	-	-	-	-
Tenn.	63	8	3	1	14,823	15,389	2	9	-	2	-	-
Ala.	14	6	14	1	10,955	12,434	-	6	-	-	-	1
Miss.	10	-	1	-	8,204	6,961	-	3	2	-	1	-
W.S. CENTRAL	467	33	58	3	57,401	60,206	26	43	14	11	1	12
Ark.	19	-	-	-	5,296	5,703	-	-	-	-	-	-
La.	90	1	3	-	10,267	11,964	-	6	-	-	1	1
Okla.	27	5	13	-	6,406	6,428	8	6	-	-	-	-
Tex.	331	27	42	3	35,432	36,111	18	31	14	11	-	11
MOUNTAIN	188	9	17	1	14,046	14,662	46	44	9	13	-	11
Mont.	4	-	-	1	405	401	3	3	-	-	-	-
Idaho	2	-	-	-	474	467	8	3	-	-	-	-
Wyo.	4	-	2	-	325	373	-	1	1	1	-	-
Colo.	92	3	3	-	3,617	4,416	4	8	2	6	-	3
N. Mex.	11	-	1	-	1,408	1,639	2	5	1	-	-	-
Ariz.	48	5	8	-	4,523	4,275	22	16	5	6	-	5
Utah	9	1	2	-	608	640	3	5	-	-	-	1
Nev.	18	-	1	-	2,686	2,451	4	3	-	-	-	2
PACIFIC	1,693	40	91	8	66,882	71,347	240	178	22	18	1	106
Wash.	82	-	10	-	4,939	5,032	48	36	5	2	-	12
Oreg.	35	-	-	-	2,650	3,470	27	12	4	-	-	-
Calif.	1,542	37	79	8	56,918	60,163	165	124	13	16	1	75
Alaska	9	-	2	-	1,592	1,689	-	-	-	-	-	-
Hawaii	25	3	-	-	783	993	-	6	-	-	-	19
Guam	-	-	-	-	93	108	1	-	-	1	-	1
P.R.	57	1	3	-	1,299	1,991	-	8	1	8	-	7
V.I.	2	-	-	-	135	279	-	1	-	-	-	-
Pac. Trust Terr.	-	-	-	-	208	502	4	-	-	1	-	20
Amer. Samoa	-	-	-	-	27	-	-	-	-	-	-	1

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending July 19, 1986 and July 20, 1985 (29th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported[*]		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	497	138	4,209	7	218	2,084	1,589	55	2,710	45	1,412	1,026	12	324	411
NEW ENGLAND	29	2	72	1	6	119	113	1	49	8	91	52	-	9	9
Maine	1	1	10	-	-	-	23	-	-	-	2	3	-	-	-
N H	1	1	36	-	-	-	6	1	13	8	46	24	-	1	2
Vt	1	-	-	-	-	-	15	-	2	-	3	2	-	1	-
Mass	15	-	23	1[†]	5	112	22	-	6	-	23	9	-	4	6
R I	4	-	2	-	-	-	15	-	9	-	1	8	-	2	-
Conn	7	-	1	-	1	7	32	-	19	-	16	6	-	1	1
MID ATLANTIC	52	41	1,342	-	20	177	258	6	120	3	110	77	2	30	162
Upstate N Y	16	6	41	-	19	82	82	5	49	3	73	42	2	22	17
N Y City	12	35	403	-	1	48	53	-	5	-	3	9	-	5	122
N J	7	-	876	-	-	24	29	-	31	-	9	3	-	3	11
Pa	17	-	22	-	-	23	94	1	35	-	25	23	-	-	12
E N CENTRAL	30	29	739	-	17	480	211	28	1,765	3	203	173	1	25	20
Ohio	8	-	-	-	10	47	86	4	96	2	82	21	-	-	-
Ind	2	4	11	-	-	49	16	-	29	-	22	11	-	-	-
Ill	10	11	473	-	3	274	57	22	1,237	-	26	24	-	18	5
Mich	9	14	45	-	-	52	48	2	232	-	23	22	1	5	14
Wis	1	-	210	-	4	58	4	-	171	1	50	95	-	2	1
W N CENTRAL	18	11	265	-	17	9	80	4	77	6	79	73	-	9	19
Minn	5	-	43	-	4	4	16	-	1	-	33	20	-	-	2
Iowa	1	3	78	-	1	-	10	3	19	2	11	4	-	1	1
Mo	6	8	25	-	6	2	27	-	15	-	5	13	-	1	7
N Dak	-	-	25	-	1	2	-	-	3	-	3	9	-	-	2
S Dak	-	-	-	-	-	-	4	-	1	1	13	1	-	-	-
Nebr	4	-	-	-	-	-	9	-	-	-	-	4	-	-	-
Kans	2	-	94	-	5	1	14	1	38	3	14	22	-	7	7
S ATLANTIC	64	10	439	-	51	220	306	6	141	8	483	203	-	9	43
Del	1	-	1	-	-	-	2	-	-	1	222	-	-	-	1
Md	11	-	20	-	9	55	42	-	12	-	99	90	-	-	3
D C	-	-	-	-	-	3	4	-	-	-	-	-	-	-	-
Va	13	2	33	-	24	22	52	2	27	-	20	5	-	-	2
W Va	4	-	2	-	-	33	3	1	36	-	10	1	-	-	9
N C	4	-	2	-	1	9	50	-	14	4	27	10	-	-	-
S C	4	1	275	-	-	-	27	-	11	-	5	-	-	-	3
Ga	6	7	75	-	14	8	45	1	14	3	79	59	-	-	-
Fla	21	-	31	-	3	90	81	2	27	-	21	38	-	9	25
E S CENTRAL	13	6	55	1	2	2	87	-	21	1	24	16	-	1	2
Ky	3	-	-	-	-	-	18	-	3	-	1	3	-	1	2
Tenn	-	6	53	-	1	1	34	-	15	-	6	5	-	-	-
Ala	6	-	-	1[†]	1	-	24	-	2	1	17	6	-	-	-
Miss	4	-	2	-	-	1	11	-	1	-	-	2	-	-	-
W S CENTRAL	43	8	561	-	33	369	132	2	139	2	99	163	-	53	28
Ark	-	-	276	-	2	-	19	-	7	-	7	12	-	-	1
La	5	1	3	-	-	39	17	-	2	-	8	8	-	-	-
Okla	7	4	29	-	2	1	18	N	N	2	58	92	-	-	1
Tex	31	3	253	-	29	329	78	2	130	-	26	51	-	53	26
MOUNTAIN	20	10	284	-	25	483	78	1	192	7	147	60	1	20	4
Mont	-	-	1	-	7	137	7	-	5	-	7	4	1	2	-
Idaho	1	-	1	-	-	132	2	-	4	-	31	2	-	-	1
Wyo	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-
Colo	7	-	2	-	5	6	13	-	11	3	41	22	-	1	-
N Mex	1	-	26	-	7	3	6	N	N	1	16	9	-	-	2
Ariz	7	10	247		6	205	16	1	160	1	30	14	-	2	1
Utah	2	-	6	-	-	-	9	-	9	2	18	9	-	12	-
Nev	2	-	1	-	-	-	23	-	3	-	3	-	-	3	-
PACIFIC	228	21	452	5	47	225	324	7	206	7	176	209	8	168	124
Wash	18	14	123	2[§]	25	39	47	-	7	3	60	27	-	8	11
Oreg	14	-	2	-	4	3	22	N	N	-	9	21	1	1	1
Calif	196	7	308	3[†,§]	17	165	244	7	185	4	99	135	5	155	71
Alaska	-	-	-	-	-	-	9	-	5	-	2	23	-	-	1
Hawaii	-	-	19	-	1	18	2	-	9	-	6	3	2	4	40
Guam	1	-	4	-	1	11	-	-	4	-	-	-	-	2	2
P R	4	-	33	-	-	48	3	-	20	2	9	6	-	58	22
V I	-	-	-	-	-	10	-	-	12	-	-	-	-	-	-
Pac Trust Terr	-	-	-	-	-	-	1	-	5	-	-	-	-	-	-
Amer Samoa	-	-	2	-	-	-	-	-	1	-	-	-	-	1	-

[*] For measles only, imported cases includes both out-of-state and international importations

N: Not notifiable U: Unavailable [†] International [§] Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending July 19, 1986 and July 20, 1985 (29th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	13,844	13,821	9	11,684	11,538	54	147	350	3,040
NEW ENGLAND	282	298	2	362	385	-	9	5	3
Maine	15	9	1	29	29	-	-	-	-
N.H.	10	6	-	10	15	-	-	-	-
Vt	6	3	-	12	4	-	-	-	-
Mass	145	155	-	180	230	-	7	2	-
R.I.	16	7	1	24	32	-	-	2	1
Conn	90	118	-	107	75	-	2	1	2
MID ATLANTIC	1,986	1,879	-	2,370	2,133	1	14	10	356
Upstate N.Y.	96	125	-	345	351	-	2	2	40
N.Y. City	1,149	1,168	-	1,230	1,063	-	6	4	-
N.J.	369	376	-	409	279	1	5	1	10
Pa	372	210	-	386	440	-	1	3	306
E.N. CENTRAL	565	631	-	1,408	1,401	-	11	44	72
Ohio	74	88	-	232	261	-	1	42	5
Ind	67	61	-	148	170	-	1	-	11
Ill	305	324	-	630	612	-	2	1	23
Mich	91	122	-	331	281	-	5	1	16
Wis	28	36	-	67	77	-	2	-	17
W.N. CENTRAL	133	126	-	329	314	14	5	18	494
Minn	22	28	-	81	62	-	1	1	60
Iowa	6	14	-	26	41	1	-	1	111
Mo	73	59	-	164	149	10	4	5	55
N. Dak	2	2	-	4	3	-	-	-	110
S. Dak	2	4	-	16	16	2	-	4	101
Nebr	11	6	-	6	13	1	-	3	17
Kans	17	13	-	32	30	-	-	4	40
S. ATLANTIC	4,048	3,511	3	2,266	2,361	7	18	159	704
Del	30	17	-	26	24	-	-	1	-
Md	249	221	-	161	212	1	5	17	364
D.C.	176	201	-	74	98	-	2	-	-
Va	212	167	-	194	213	2	5	23	108
W. Va	12	9	-	67	61	-	2	6	15
N.C.	292	375	-	323	296	1	2	53	4
S.C.	367	425	3	289	312	-	-	48	32
Ga	637	-	-	333	373	3	-	11	101
Fla	2,073	2,096	-	799	772	-	7	-	80
E.S. CENTRAL	938	1,077	-	1,016	1,019	6	1	45	163
Ky	47	35	-	250	228	2	-	10	56
Tenn	347	307	-	299	304	3	-	18	56
Ala	304	362	-	331	319	1	-	10	50
Miss	240	373	-	136	168	-	1	7	1
W.S. CENTRAL	2,893	3,390	3	1,480	1,395	23	12	63	466
Ark	153	171	-	188	148	14	-	2	111
La	481	592	-	228	195	1	-	-	14
Okla	77	96	-	137	152	6	1	52	38
Tex	2,182	2,531	3	927	900	2	11	9	303
MOUNTAIN	331	404	1	263	309	2	7	6	443
Mont	6	2	-	16	41	-	1	3	156
Idaho	6	3	-	11	15	-	-	-	1
Wyo	-	6	-	-	5	-	-	1	203
Colo	82	98	-	20	36	-	1	2	4
N. Mex	44	62	-	54	58	1	-	-	4
Ariz	136	208	-	127	127	-	2	-	71
Utah	9	4	1	20	6	1	2	-	1
Nev	48	21	-	15	21	-	1	-	3
PACIFIC	2,668	2,505	-	2,190	2,221	1	70	-	339
Wash	52	70	-	113	122	-	3	-	2
Oreg	59	48	-	74	75	-	-	-	-
Calif	2,535	2,342	-	1,855	1,845	-	63	-	329
Alaska	1	2	-	33	66	1	1	-	8
Hawaii	21	43	-	115	113	-	3	-	-
Guam	1	2	-	32	28	-	-	-	-
P.R.	446	442	-	165	186	-	4	-	26
V.I.	-	1	-	1	1	-	-	-	-
Pac. Trust Terr	162	49	-	33	35	-	39	-	-
Amer. Samoa	-	-	-	3	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending July 19, 1986 (29th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	569	368	126	34	17	24	30
Boston, Mass	176	106	45	14	3	8	10
Bridgeport, Conn	30	20	6	3	1	-	2
Cambridge, Mass	12	9	2	1	-	-	1
Fall River, Mass	21	18	2	1	-	-	-
Hartford, Conn	44	27	11	1	3	2	3
Lowell, Mass	30	20	6	-	2	2	3
Lynn, Mass	19	14	4	1	-	-	-
New Bedford, Mass	21	18	2	1	-	-	1
New Haven, Conn	42	22	10	4	2	4	2
Providence, R.I.	45	28	12	1	-	4	1
Somerville, Mass	6	6	-	-	-	-	-
Springfield, Mass	34	23	7	1	1	2	2
Waterbury, Conn	32	20	7	1	3	1	3
Worcester, Mass	57	37	12	5	2	1	2
MID ATLANTIC	2,578	1,653	509	247	77	91	98
Albany, N.Y.	48	30	12	1	1	4	2
Allentown, Pa	24	20	2	-	2	-	-
Buffalo, N.Y.	104	70	20	5	4	5	3
Camden, N.J.	31	22	5	3	-	1	1
Elizabeth, N.J.	30	21	6	3	-	-	1
Erie, Pa †	33	23	7	3	-	-	1
Jersey City, N.J.	39	22	9	6	2	-	1
N.Y. City, N.Y.	1,405	867	279	161	43	55	48
Newark, N.J.	71	34	14	14	3	5	1
Paterson, N.J.	27	17	3	2	1	4	1
Philadelphia, Pa §	351	240	80	24	3	4	17
Pittsburgh, Pa †	49	31	9	6	2	1	1
Reading, Pa	26	19	3	1	2	1	1
Rochester, N.Y.	112	71	25	5	5	6	8
Schenectady, N.Y.	21	15	5	-	1	-	1
Scranton, Pa †	26	19	5	-	1	1	3
Syracuse, N.Y.	85	63	12	4	4	2	3
Trenton, N.J.	41	27	4	6	2	2	4
Utica, N.Y.	28	24	3	-	1	-	1
Yonkers, N.Y.	27	18	6	3	-	-	-
E.N. CENTRAL	2,309	1,480	510	173	72	74	96
Akron, Ohio	68	45	15	3	2	3	3
Canton, Ohio	33	24	6	1	1	1	2
Chicago, Ill §	564	382	125	45	10	22	16
Cincinnati, Ohio	206	142	44	9	6	5	17
Cleveland, Ohio	151	93	40	10	3	5	4
Columbus, Ohio	126	78	26	12	5	5	6
Dayton, Ohio	119	72	37	6	3	1	8
Detroit, Mich	254	138	54	32	19	11	2
Evansville, Ind	46	36	7	3	-	-	-
Fort Wayne, Ind	47	34	5	3	3	2	3
Gary, Ind	18	8	5	4	1	-	-
Grand Rapids, Mich	60	42	14	2	2	-	3
Indianapolis, Ind	170	104	35	10	6	6	4
Madison, Wis	39	25	6	2	3	3	5
Milwaukee, Wis	120	81	26	7	2	4	5
Peoria, Ill	57	38	10	5	2	2	6
Rockford, Ill	40	27	8	3	2	-	3
South Bend, Ind	37	25	9	2	-	1	2
Toledo, Ohio	104	76	21	3	2	3	5
Youngstown, Ohio	50	31	17	2	-	-	2
W.N. CENTRAL	697	479	130	41	20	27	25
Des Moines, Iowa	62	44	16	2	-	-	1
Duluth, Minn	26	16	5	-	-	5	1
Kansas City, Kans	35	27	4	1	2	1	-
Kansas City, Mo	111	70	27	6	3	5	8
Lincoln, Nebr	39	28	8	-	1	2	3
Minneapolis, Minn	53	45	3	2	2	1	1
Omaha, Nebr	87	64	16	5	1	1	5
St. Louis, Mo	153	102	31	12	3	5	3
St. Paul, Minn	57	39	7	6	3	2	-
Wichita, Kans	74	44	13	7	5	5	3
S. ATLANTIC	1,222	731	277	117	48	48	49
Atlanta, Ga	209	117	52	24	8	8	4
Baltimore, Md	153	93	35	12	3	10	4
Charlotte, N.C.	85	57	17	5	3	3	2
Jacksonville, Fla	116	73	22	10	8	3	5
Miami, Fla	79	33	29	11	2	4	5
Norfolk, Va	73	40	16	9	5	3	6
Richmond, Va	78	46	20	7	2	3	7
Savannah, Ga	30	16	11	1	2	-	3
St. Petersburg, Fla	153	125	19	2	6	1	7
Tampa, Fla	86	52	19	6	1	7	2
Washington, D.C.	139	64	33	29	7	6	3
Wilmington, Del	21	15	4	1	1	-	1
E.S. CENTRAL	810	499	175	76	32	28	36
Birmingham, Ala	106	52	32	13	5	4	2
Chattanooga, Tenn	65	46	12	4	-	3	10
Knoxville, Tenn	66	46	14	4	2	-	5
Louisville, Ky	122	70	33	15	1	3	6
Memphis, Tenn §	157	96	35	12	7	7	6
Mobile, Ala	89	62	14	7	5	1	2
Montgomery, Ala	66	41	8	6	6	5	-
Nashville, Tenn	139	86	27	15	6	5	5
W.S. CENTRAL	1,339	748	318	143	76	53	45
Austin, Tex	49	32	7	7	2	1	3
Baton Rouge, La	46	30	12	2	-	2	3
Corpus Christi, Tex	35	16	12	4	1	2	1
Dallas, Tex	210	106	56	29	7	12	7
El Paso, Tex	64	37	16	5	4	1	4
Fort Worth, Tex	111	56	24	13	12	6	5
Houston, Tex	338	182	71	48	26	9	2
Little Rock, Ark	83	48	24	4	2	5	7
New Orleans, La	97	54	22	10	6	5	1
San Antonio, Tex	171	99	46	12	12	2	6
Shreveport, La	39	23	11	1	-	4	2
Tulsa, Okla	96	65	17	8	2	4	4
MOUNTAIN	636	372	140	58	37	29	28
Albuquerque, N.Mex	70	35	24	7	3	1	3
Colo. Springs, Colo	38	27	5	3	2	1	5
Denver, Colo	125	75	23	14	5	8	2
Las Vegas, Nev	94	61	20	11	1	1	5
Ogden, Utah	27	15	4	4	2	2	3
Phoenix, Ariz	115	72	22	3	10	8	3
Pueblo, Colo	26	12	8	2	4	-	2
Salt Lake City, Utah	53	28	8	6	5	6	3
Tucson, Ariz	88	47	26	8	5	2	2
PACIFIC	1,888	1,191	384	188	68	56	91
Berkeley, Calif §	19	14	2	1	1	1	-
Fresno, Calif	76	46	16	8	2	4	5
Glendale, Calif	25	21	2	2	-	-	2
Honolulu, Hawaii	69	50	13	4	2	-	5
Long Beach, Calif	65	44	14	2	1	4	8
Los Angeles, Calif	549	345	101	62	29	10	17
Oakland, Calif	88	53	20	6	4	5	3
Pasadena, Calif	23	16	3	2	1	1	1
Portland, Oreg	113	77	25	6	2	3	3
Sacramento, Calif	124	71	32	14	5	2	9
San Diego, Calif	170	104	28	20	5	13	11
San Francisco, Calif	148	88	30	23	4	3	5
San Jose, Calif	155	100	37	12	2	4	12
Seattle, Wash	161	104	33	18	1	5	6
Spokane, Wash	60	36	14	4	4	1	3
Tacoma, Wash	43	22	14	4	3	-	1
TOTAL	12,048††	7,521	2,569	1,077	445	430	498

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*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§ Data not available. Figures are estimates based on average of past 4 weeks.

Influenza — Continued

National data on influenza activity for the 1985-1986 season were obtained from four major sources: (1) weekly reports of the number of respiratory specimens tested and the number and types of influenza virus isolates identified by 63 collaborating state, county, city, or military laboratories; (2) weekly reports of mortality from 121 cities, including deaths associated with P&I, an index that has historically reflected seasonal influenza-attributable mortality; (3) weekly semiquantitative estimates from each state health department of the extent of influenza-like morbidity indicated by its statewide surveillance system; and (4) weekly reports from approximately 125 physician members of the American Academy of Family Physicians Research Panel who recorded the number of patients seen in their offices with influenza-like illnesses. In addition, CDC also received spontaneous reports of unusual influenza cases and outbreaks from a variety of sources.

The first influenza isolates were type A(H3N2) strains from sporadic cases in Texas and Alaska in September and single isolates from Rochester, New York, and Houston, Texas, in October. Single isolates of type A(H1N1) and type B viruses were also reported in October from Hawaii and Houston, respectively. In mid-November, Alaska began reporting outbreaks of influenza-like illness initially caused by type A(H3N2) viruses but later associated with an increasing proportion of influenza B viruses. The level of activity in Alaska increased to widespread outbreaks by late November and remained widespread until early January. Although Hawaii began reporting influenza outbreaks associated with type A(H3N2) in late December, general increases in influenza activity in the nation did not occur until January, when outbreaks of influenza B, particularly in schools, rapidly increased. Further spread of type A(H3N2) virus also occurred, and by the end of January, when 18 states were reporting regional or widespread outbreaks of influenza-like illness, type B viruses had been identified in 31 states, and type A(H3N2), in 19 states.

Virus isolations peaked in early February in parallel with the peak in reports of influenza morbidity from physicians (Figure 2). Activity began to decline in late February and decreased to preseason levels early in April.

A total of 2,313 isolates were reported by the collaborating laboratories, more than for any season in the last 10 years (Figure 3). By the end of the season, type B virus had been isolated from every state and the District of Columbia (Figure 4). Type B virus accounted for 75.7%, and type A(H3N2) virus, for 24.2%, of the reported isolates. Antigenic analysis of influenza B isolates revealed variation from prior strains (*2*). As in 1984-1985, type A(H1N1) viruses were isolated rarely—from a few individuals with sporadic cases in Texas and from one person in Hawaii. Only 3.9% of type B viruses reported by the collaborating laboratories were isolated from persons over 64 years of age, compared with 20.7% of type A(H3N2) viruses (Table 2).

By the end of the season, 43 states and the District of Columbia had reported widespread or regional outbreaks (Figure 5), compared with the 36 and 37 states reporting outbreaks during the two preceding seasons. P&I deaths reported for surveillance purposes by the 121 cities peaked at 6.3% of total deaths in late February, lower than the peak of 7.2% for the previous season, when type A(H3N2) viruses predominated (Figure 2).

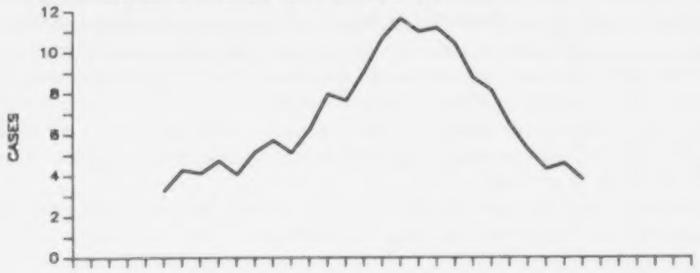
Influenza outbreaks in nursing homes were caused both by types A(H3N2) and B viruses. The relative frequency of these virus types among nursing-home residents is not known, as influenza-like outbreaks in such populations are not routinely reported, and laboratory confirmation is not routinely sought.

Reported by State and Territorial Epidemiologists; State Laboratory Directors; U.S. School of Aerospace Medicine, San Antonio, Influenza Research Center, Baylor College of Medicine, Houston, Brooke Army Medical Center, Fort Sam Houston, Texas; Milwaukee Health Dept Virus Laboratory, Wisconsin; Allegheny County Health Laboratory, Pittsburgh, Pennsylvania; Sunrise Hospital Virology Laboratory, Las Vegas, Nevada; Virology Section, Children's Hospital, Washington, DC; Montefiore Hospital and Medical Center

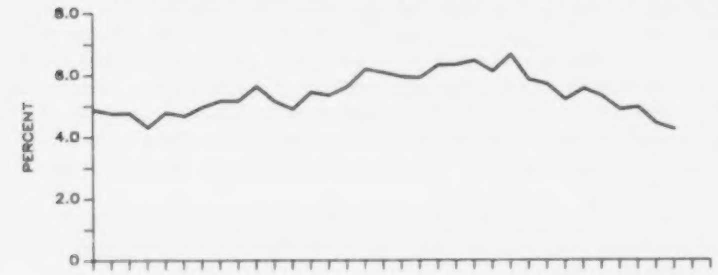
Influenza — Continued

FIGURE 2. Indicators of influenza activity, by week — United States, 1985-1986

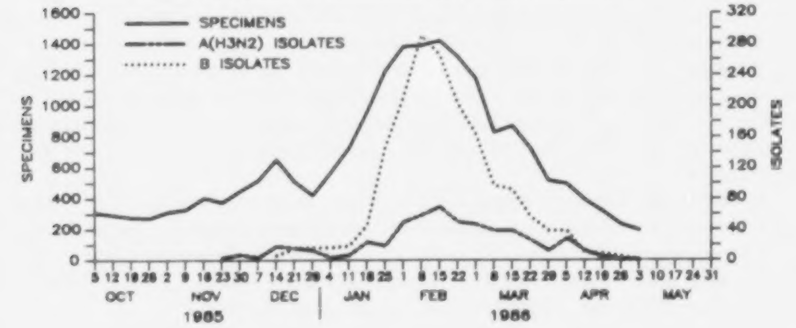
Influenza-like cases reported by physicians[*]



Pneumonia and influenza deaths[†] as percentage of total deaths



Laboratory diagnosis of influenza,[§] by virus isolations



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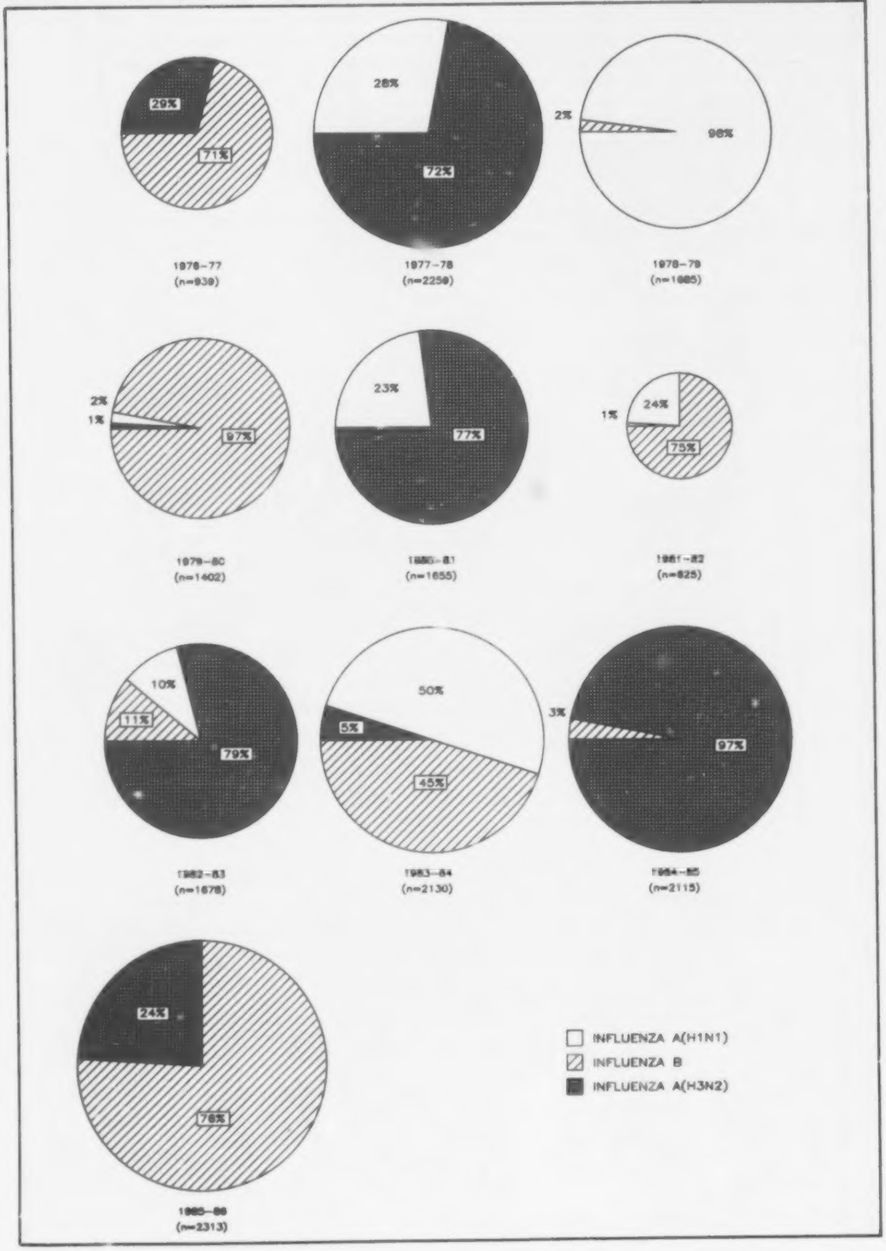
[*] Reported to CDC by approximately 125 physician members of the American Academy of Family Physicians. A case was defined as a patient with fever 37.8 C (100 F) or greater and at least cough or sore throat.

[†] Reported to CDC from 121 cities in the United States. Pneumonia and influenza deaths include all deaths where pneumonia is listed as a primary or underlying cause or where influenza is listed on the death certificate.

[§] Reported to CDC by WHO Collaborating Laboratories (including military sources).

Influenza — Continued

FIGURE 3. Isolation of influenza viruses reported to CDC by collaborating civilian and military laboratories — United States, 1976-1986



Influenza — Continued

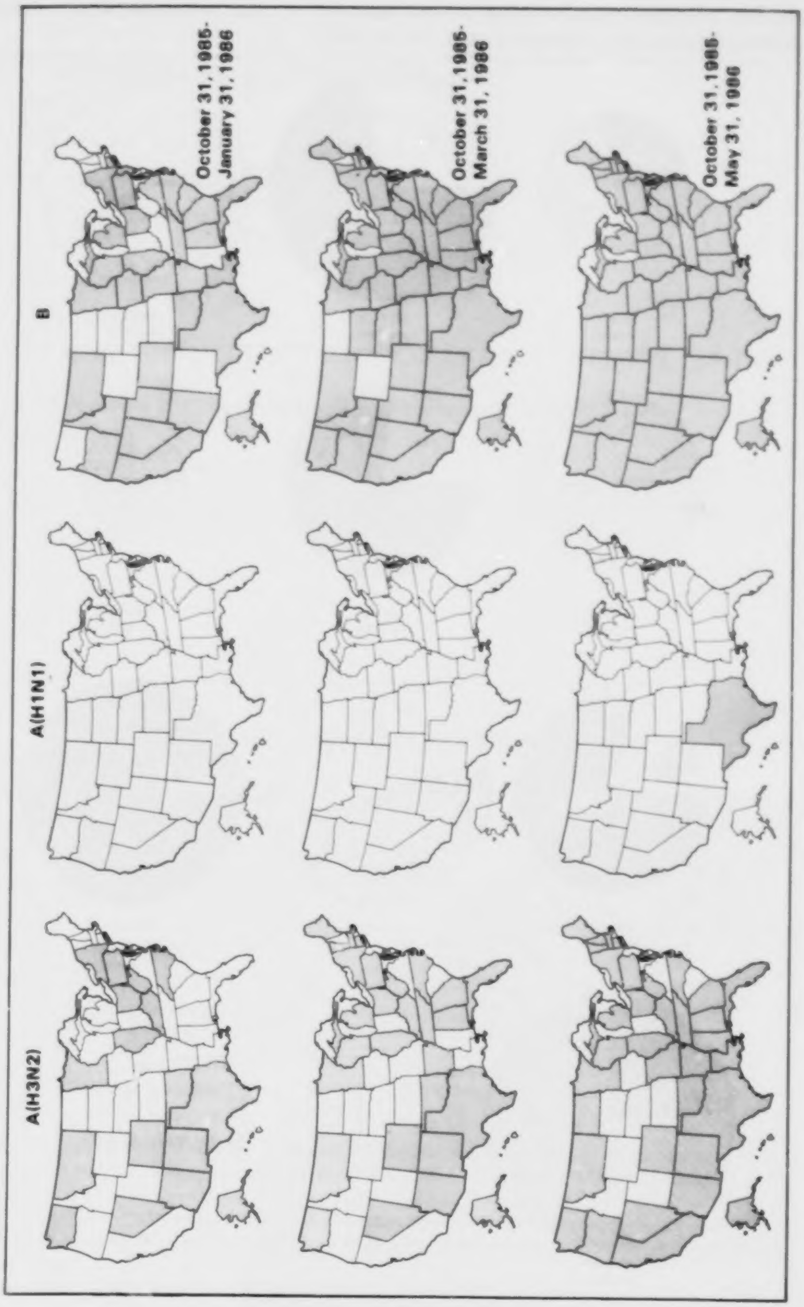

A(H3N2)
A(H1N1)
B
October 31, 1985-
January 31, 1986
October 31, 1985-
March 31, 1986
October 31, 1985-
May 31, 1986

FIGURE 4. Cumulative summary of states with influenza virus isolates reported, by date of first official notification — United States, 1985-1986 season

Influenza – Continued

Virus Laboratory, Kings County Hospital, New York City, Nassau County Medical Center Virology Laboratory, East Meadow, Erie County Medical Center Virology Laboratory, Buffalo, University of Rochester Medical Center, Rochester, New York; Charity Hospital Virology and Rickettsial Laboratory, New Orleans, Louisiana; Mayo Clinic Virology Laboratory, Rochester, Minnesota; Veterans Administration Hospital Virus Laboratory, West Haven, Connecticut; Dept of Pediatrics, University of Chicago, Illinois; University of Arizona Health Svc Center Virology Laboratory, Tucson; Letterman Army Medical Center, San Francisco, Los Angeles County Health Dept Virology Laboratory, Los Angeles, Public Health Laboratory, San Diego, California; University of Colorado Medical Center Virus Laboratory, Denver, Virology Div, Children's Orthopedic Hospital, Seattle, Washington; participating physicians of the American Academy of Family Physicians; Statistical Svcs Br, Div of Surveillance and Epidemiologic Studies, Epidemiology Program Office, Influenza Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

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2. CDC. Update: influenza activity—United States—and influenza type B virus drift. MMWR 1986;35:92-4.

FIGURE 5. Highest level of influenza morbidity reported, by state — United States, November 1985-June 1986

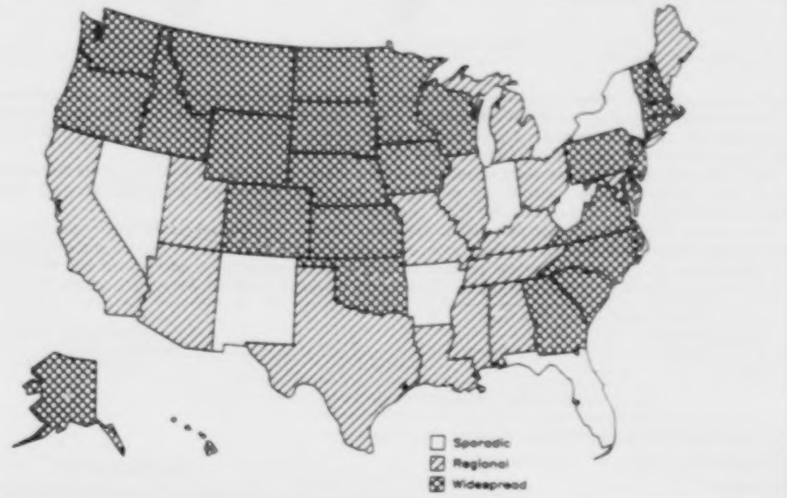
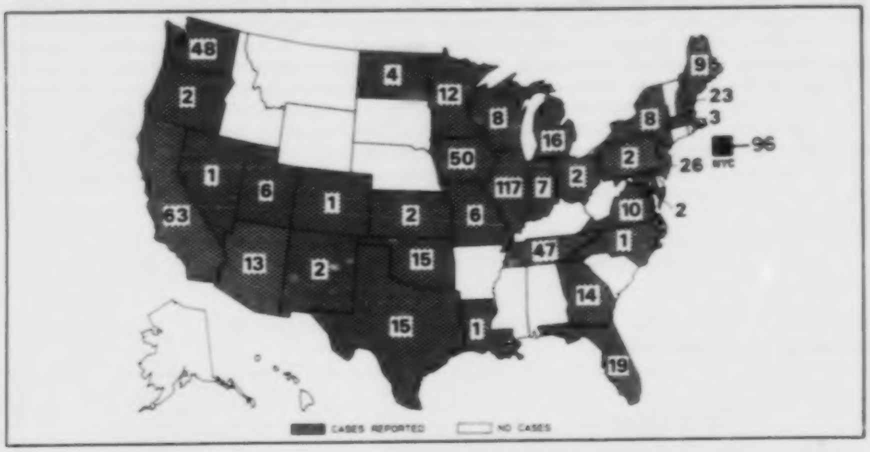


TABLE 2. Specimens tested and influenza viruses isolated as reported to CDC by collaborating laboratories — United States, October 1985-May 1986

Age group (yrs.)	Laboratory report (no. [%])							
	Specimens tested		Type A(H1N1)		Type A(H3N2)		Type B	
< 20	11,007	(55.4)	1	(100.0)	216	(38.6)	941	(53.7)
20-64	4,845	(24.4)	0	(0.0)	114	(20.4)	485	(27.7)
> 64	1,214	(6.1)	0	(0.0)	116	(20.7)	68	(3.9)
Not specified	2,820	(14.2)	0	(0.0)	114	(20.4)	258	(14.7)
Total	**19,886**	**(100.0)**	**1**	**(100.0)**	**560**	**(100.0)**	**1,752**	**(100.0)**

FIGURE I. Reported measles cases — United States, weeks 25-28, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report,* Centers for Disease Control, Atlanta, Georgia 30333.

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MORBIDITY AND MORTALITY WEEKLY REPORT

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481 Hepatitis B among Parenteral Drug Abusers — North Carolina
483 Acute Respiratory Illness Following Occupational Exposure to Wood Chips — Ohio
490 Release of Botulism Antitoxin

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Epidemiologic Notes and Reports

Hepatitis B among Parenteral Drug Abusers — North Carolina

Since 1983, an increased incidence of hepatitis B (HB) has been observed in Durham County, North Carolina, primarily involving parenteral drug abusers (PDAs) and their sexual contacts. Eighty-six cases (including 50 cases among PDAs or their sexual contacts) were reported in 1985, compared with 24 cases in 1984 and eight in 1983. Of the 1985 patients, nine were hospitalized, and two died. Seventy-six patients who could be located were interviewed regarding risk factors for HB, and serum samples were obtained from 64 (74%) patients to confirm the diagnosis of HB and to test for evidence of coinfection with the delta agent.

Of the 86 cases, 56 (65%) were among males. Sixty-five (76%) were black; 20 (23%) were white; and one was Asian. Ages ranged from 9 months to 54 years (median 26 years). Forty-six (61%) of 76 patients on whom detailed data were obtained were known PDAs; six others were sexual contacts or infants of PDAs; and four were males who had had (or were suspected of having had) sexual relations with another male. Of 33 reporting self-injection of drugs within the last 6 months, 30 (91%) admitted sharing intravenous (IV) needles, and 20 (61%) reported recently injecting cocaine. Other drugs injected included methamphetamine, heroin, hydromorphone, and phenmetrazine. None reported using 3,4-methylene diamphetamine (MDA), a drug implicated in fulminant HB deaths among PDAs in North Carolina in 1979 (*1*). Of 47 persons assayed, seven (15%) had markers for delta virus exposure. All seven with delta virus infection were PDAs. Ninety-six percent of the patients had lived in Durham over 10 years; the majority were employed. Fifty-three percent resided within a 1-mile radius of downtown Durham; in this area, the HB attack rate for 1985 was 365/100,000 persons in the 15- to 49-year age group, compared with national attack rates of 17/100,000 persons in the same age group (*2*).

Reported by IF Hoffman, JD Stratton, MD, Durham County Health Dept, SM Lemon, MD, Div of Infectious Diseases, Dept of Internal Medicine, Memorial Hospital, University of North Carolina, Chapel Hill, RA Meriwether, MD, Communicable Disease Control Br, JN MacCormack, MD, State Epidemiologist, Div of Health Svcs, North Carolina Dept of Human Resources; Div of Field Svcs, Epidemiology Program Office, Hepatitis Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: Many HB outbreaks have been described among PDAs over the last 2 decades, and serologic surveys have demonstrated that HB virus (HBV) infection is highly prevalent in this group (*1,3-7*). More recently, combined HBV and delta virus infection has been recognized to cause hepatitis outbreaks with unusually high mortality in PDAs (*7*). Com-

HE 20.7009:

Hepatitis B — Continued

bined HBV-delta virus infection (either coinfection with both viruses or delta superinfection of HBV carriers) is associated with higher frequency of fulminant hepatitis than HBV infection alone. Delta superinfection of HBV carriers frequently causes transformation from no or mild chronic liver disease to severe, progressive chronic active hepatitis. In the United States, infection with the delta agent has been observed previously among persons with frequent blood and blood-product exposures, i.e., PDAs and hemophiliacs. PDAs can serve as a source of HB and delta agent infections that can disseminate to lesser-risk groups, e.g., sexual contacts and health-care workers (*7*). In the United States, although only 10%-15% of persons reported with HB infection have been identified as PDAs, control of HB among PDAs and persons in other risk groups is critical for limiting the spread of HB and delta agent in the general population.

Control of HB outbreaks among PDAs has proven difficult. In previous outbreaks, several strategies have been tried including public education programs, tracking and identification of contacts, and, in one instance, an HB vaccine campaign. An HB vaccine program attempted among PDAs during a large outbreak of HB and delta hepatitis in Worcester, Massachusetts, had limited success, principally due to a lack of perceived danger among otherwise healthy PDAs and the lack of patient compliance in completing vaccination (*8*). The highly publicized program offered free serologic testing and vaccinations to PDAs and their regular sexual contacts at local community clinics and to PDAs attending drug abuse clinics or undergoing incarceration. During this ongoing project, only 27% of the approximately 300 participants were susceptible to HB, including only 5% of PDAs who had used parenteral drugs for longer than 5 years and who represented the majority of participants. Of HB-susceptible PDAs, only 58% and 31% returned to receive the second and third vaccine doses, respectively. Because Worcester has a large PDA population and an overall population of 160,000, the successful vaccination of a relatively small number of susceptible PDAs has not visibly affected the course of the outbreak.

Because of difficulty in delivering HB vaccine to PDAs, other control tactics have been suggested (*9*). Educational efforts directed at behavior modification, including avoidance of parenteral drug abuse, or at least avoidance of sharing IV needles, are presently being mounted in Durham County. Because HB is also a sexually transmitted disease, sexual behaviors need to be emphasized also to help PDAs minimize their number of sexual partners, to use appropriate barrier methods, and to encourage their partners to seek HB vaccination. A program to vaccinate susceptible PDAs in Durham County is also being considered.

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Acute Respiratory Illness Following Occupational Exposure to Wood Chips — Ohio

The inhalation of organic dust contaminated with microbes has been recognized as an occupational hazard for persons who work with decomposing vegetable matter (*1-6*). An outbreak of illness caused by such inhalation occurred in Ohio in 1983. The investigation that followed is described below.

On June 21, 1983, five employees at a municipal golf course became ill with an influenza-like syndrome within hours after manually unloading a trailer truck full of wood chips. Physicians from the city health department examined and tested all golf-course employees who had helped in the unloading and requested assistance from the National Institute for Occupational Safety and Health in evaluating the outbreak (*7*). On June 24, a questionnaire was administered to those employees exposed to wood chips, and their medical records were reviewed. The investigators inspected the unloaded wood chips, collected samples, and interviewed the wood chips' vendor.

The wood chips were brought to the golf course in an enclosed, 40-foot trailer. Eleven employees participated in some aspect of the unloading process. Although fresh chips had been ordered, the vendor included old chips that had been stored in the front of the truck for approximately 1 year. Unloaded chips from the front were grossly moldy, and cultures revealed a wide variety of mesophilic and thermophilic bacteria and fungi.

A case was defined as the presence in an employee of at least five of the following six symptoms after exposure to the wood chips: malaise, fever, difficulty breathing, chest tightness, headache, and cough. Except for cough, which was reported by two persons who did not meet the case definitions, each symptom was reported more frequently by ill persons than by well persons ($p < 0.05$) (Table 1).

All five ill employees had worked in very dusty conditions without respiratory protection while unloading the front of the trailer on the afternoon of June 21. The time from beginning of unloading until onset of illness ranged from 4 hours to 16 hours (median 13 hours). None of the workers were hospitalized, but one reported to a local emergency room, and two were too ill to work the following day. Within 48 hours, symptoms were very much improved; within 72 hours, all affected workers had completely recovered.

The other six employees included three who had unloaded fresh chips from the back of the trailer on the morning of June 21, one supervisor who had briefly checked on the unloading process, and two workers who finished unloading the front of the trailer on the morning of June 22 but wore air-purifying respirators. Thus, all five workers who had unloaded the moldy wood chips without respiratory protection became ill, compared with none of the other six workers.

TABLE 1. Symptoms reported by ill and well golf-course employees following exposure to wood chips — Ohio

Symptoms	Ill employees (n = 5)	Well employees (n = 6)
Weakness, feeling tired	5	2
Cough	4	2
Difficulty breathing	5	0
Fever	5	0
Chest tightness	5	0
Headaches	5	0

Acute Respiratory Illness – Continued

The mean total white blood count in ill workers (11,000) was significantly higher than in those who remained well (8,100); a significantly greater mean absolute polymorphonuclear leukocyte count was also found among the ill (ill: 8,300, well: 5,600) ($p = 0.008$). The erythrocyte sedimentation rate was elevated in all five ill workers but in only two of the six who did not become ill. Except for one individual who had radiographic changes due to previous surgery, all those who became ill had normal chest radiographs and spirometry. Furthermore, none had positive tests for precipitating antibodies against a standard panel of 11 antigens associated with hypersensitivity pneumonitis extracts of three types of wood chips and 12 microbial organisms isolated from the wood chips (*8*). Tests for complement fixing antibodies as evidence of histoplasmosis produced low titers in both the acute and convalescent sera of the ill workers.

On the basis of clinical and epidemiologic evidence, the investigators concluded that this episode probably represented an outbreak of self-limited, acute toxic reaction associated with inhalation of large amounts of dust heavily contaminated with microbial toxins from decomposing vegetable matter.

(Continued on page 489)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	30th Week Ending			Cumulative, 30th Week Ending		
	July 26, 1986	July 27, 1985	Median 1981-1985	July 26, 1986	July 27, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	301	194	N	7,074	4,290	N
Aseptic meningitis	380	300	300	3,468	3,106	3,201
Encephalitis: Primary (arthropod borne & unspec.)	29	27	34	484	566	570
Post-infectious	3	2	1	62	83	58
Gonorrhea: Civilian	19,327	19,870	19,870	483,732	495,299	506,178
Military	333	552	474	9,037	12,111	13,691
Hepatitis: Type A	408	412	415	12,387	12,242	12,242
Type B	544	458	454	14,628	14,372	13,424
Non A, Non B	57	75	N	2,009	2,348	N
Unspecified	72	99	146	2,685	3,244	4,120
Legionellosis	19	21	N	344	401	N
Leprosy	9	2	2	163	211	146
Malaria	34	40	29	533	536	536
Measles: Total*	158	39	36	4,608	2,123	2,098
Indigenous	157	33	N	4,386	1,795	N
Imported	1	6	N	222	328	N
Meningococcal infections: Total	39	50	38	1,632	1,564	1,838
Civilian	39	50	38	1,630	1,558	1,835
Military	-	-	-	2	6	8
Mumps	224	36	36	2,940	2,040	2,277
Pertussis	64	85	44	1,478	1,111	1,111
Rubella (German measles)	30	27	27	355	438	718
Syphilis (Primary & Secondary): Civilian	556	684	622	14,438	15,248	17,153
Military	3	2	10	102	112	227
Toxic Shock syndrome	8	11	N	203	228	N
Tuberculosis	561	511	511	12,233	12,049	13,221
Tularemia	10	7	8	64	97	128
Typhoid fever	5	20	10	152	190	210
Typhus fever, tick-borne (RMSF)	45	19	55	395	348	596
Rabies, animal	42	140	126	3,087	3,032	3,675

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis (Mo. 1)	21
Botulism: Foodborne	5	Plague	4
Infant	28	Poliomyelitis, Paralytic	-
Other	1	Psittacosis (Mich. 2, Ky. 1)	53
Brucellosis (Tenn. 1)	38	Rabies, human	-
Cholera	-	Tetanus	30
Congenital rubella syndrome	2	Trichinosis	20
Congenital syphilis, ages < 1 year	11	Typhus fever, flea-borne (endemic, murine) (Fla. 1)	23
Diphtheria	-		

*One of the 156 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending July 26, 1986 and July 27, 1985 (30th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	7,074	380	484	62	483,732	495,299	408	544	57	72	19	163
NEW ENGLAND	314	21	14	3	11,591	13,499	10	28	2	8	-	6
Maine	12	4	-	-	519	600	-	3	-	-	-	-
N.H.	6	1	2	-	297	308	-	1	1	-	-	-
Vt	3	-	2	2	158	170	-	-	-	-	-	-
Mass	164	4	3	-	4,831	5,139	4	10	1	8	-	6
R.I.	18	9	-	-	971	1,038	1	4	-	-	-	-
Conn	111	3	7	1	4,815	6,244	5	10	-	-	-	-
MID ATLANTIC	2,684	17	65	6	83,143	72,108	16	42	2	15	1	11
Upstate N.Y.	234	6	24	4	9,649	9,387	4	19	2	1	-	1
N.Y. City	1,825	7	14	-	49,292	36,785	2	5	-	11	1	9
N.J.	444	4	10	-	10,572	10,971	10	18	-	3	-	-
Pa	181	-	17	2	13,630	14,965	-	-	-	-	-	1
E.N. CENTRAL	444	100	120	9	64,641	66,245	16	34	2	6	5	4
Ohio	100	12	37	2	16,671	16,727	6	12	1	1	3	-
Ind	42	56	25	3	6,802	7,065	4	5	-	2	-	-
Ill	206	15	23	3	18,266	17,801	3	1	-	-	-	3
Mich	78	17	30	1	20,308	18,479	3	16	1	3	2	1
Wis	18	-	5	-	2,594	6,173	-	-	-	-	-	-
W.N. CENTRAL	131	24	14	8	21,408	22,825	8	19	3	-	2	2
Minn	47	2	7	-	2,975	3,288	5	1	2	-	-	1
Iowa	10	2	6	-	2,099	2,480	-	2	1	-	-	-
Mo	47	8	-	-	10,966	10,879	-	9	-	-	-	-
N. Dak	2	-	-	-	187	156	-	-	-	-	-	-
S. Dak	1	6	-	-	438	422	-	1	-	-	-	-
Nebr	6	3	-	1	1,537	1,998	3	1	-	-	-	-
Kans	18	3	1	7	3,206	3,602	-	5	-	-	2	1
S. ATLANTIC	867	54	67	21	120,224	128,184	40	123	13	9	5	1
Del	14	-	4	-	1,998	2,305	-	2	-	-	-	-
Md	100	4	19	1	14,355	16,468	4	21	1	-	2	-
D.C.	119	-	-	-	9,410	8,546	-	2	-	1	-	-
Va	96	11	21	1	10,360	10,638	2	10	1	-	-	1
W. Va	5	5	11	-	1,299	1,428	2	8	1	-	-	-
N.C.	39	14	10	1	19,916	19,588	-	19	8	1	1	-
S.C.	21	3	-	-	11,191	12,446	-	9	-	1	-	-
Ga	138	1	-	1	15,862	25,663	2	19	-	1	1	-
Fla	335	16	2	17	35,833	31,102	30	33	2	5	1	-
E.S. CENTRAL	96	46	31	3	39,858	40,718	9	45	7	-	-	1
Ky	18	17	12	1	4,436	4,650	3	10	3	-	-	-
Tenn	53	2	3	1	15,364	16,197	-	9	-	-	-	-
Ala	15	27	15	1	11,416	12,661	1	24	4	-	-	1
Miss	10	-	1	-	8,642	7,210	5	2	-	-	-	-
W.S. CENTRAL	470	32	62	3	59,109	62,750	47	43	2	17	1	12
Ark	21	1	-	-	5,486	6,124	2	7	-	-	-	-
La	90	3	3	-	10,482	12,267	1	6	-	-	-	1
Okla	27	6	13	-	6,641	6,645	9	6	2	-	1	-
Tex	332	22	46	3	36,500	37,714	35	24	-	17	-	11
MOUNTAIN	187	7	18	1	14,584	15,248	50	52	9	3	-	11
Mont	4	1	-	1	420	418	9	1	-	-	-	-
Idaho	2	-	-	-	485	481	2	1	-	-	-	-
Wyo	4	-	2	-	335	373	-	-	-	-	-	-
Colo	100	2	3	-	3,792	4,623	-	3	-	1	-	3
N. Mex	11	-	2	-	1,463	1,759	15	11	3	-	-	-
Ariz	48	-	8	-	4,675	4,401	17	17	5	2	-	5
Utah	10	-	2	-	622	660	5	4	-	-	-	1
Nev	18	4	1	-	2,792	2,533	2	15	1	-	-	2
PACIFIC	1,871	59	93	8	69,174	73,722	212	158	17	14	5	115
Wash	82	5	10	-	5,178	5,238	32	36	3	4	1	13
Oreg	35	-	-	-	2,741	3,528	58	7	2	2	-	-
Calif	1,720	47	81	8	58,824	62,186	122	115	12	8	4	80
Alaska	9	3	2	-	1,632	1,744	-	-	-	-	-	-
Hawaii	25	4	-	-	799	1,026	-	-	-	-	-	22
Guam	-	-	-	-	101	118	-	-	-	-	-	1
P.R.	58	1	3	-	1,299	2,030	1	6	2	3	-	7
V.I.	2	-	-	-	139	290	-	-	-	-	-	-
Pac. Trust Terr	-	-	-	-	220	574	3	-	-	-	-	25
Amer. Samoa	-	-	-	-	30	-	1	1	-	-	-	1

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending July 26, 1986 and July 27, 1985 (30th Week)

Reporting Area	Malaria	Measles (Rubeola)					Meningococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	533	157	4,386	1	222	2,123	1,632	224	2,940	64	1,478	1,111	30	355	438
NEW ENGLAND	29	4	76	-	6	119	117	-	49	6	97	55	-	9	10
Maine	1	2	12	-	-	-	23	-	-	-	2	4	-	-	-
N.H.	1	1	37	-	-	-	6	-	13	-	46	25	-	1	2
Vt	1	-	-	-	-	-	15	-	2	-	3	2	-	1	-
Mass	15	1	24	-	5	112	26	-	6	4	27	10	-	4	6
R.I.	4	-	2	-	-	-	15	-	9	2	3	8	-	2	-
Conn	7	-	1	-	1	7	32	-	19	-	16	6	-	1	2
MID ATLANTIC	58	40	1,382	-	20	183	265	3	123	5	116	79	-	30	181
Upstate N.Y.	22	2	43	-	19	82	89	1	50	3	77	42	-	22	17
N.Y. City	12	38	441	-	1	54	53	-	5	-	3	9	-	5	141
N.J.	7	-	876	-	-	24	29	-	31	-	9	3	-	3	11
Pa	17	-	22	-	-	23	94	2	37	2	27	25	-	-	12
E.N. CENTRAL	31	18	779	-	18	498	215	203	1,974	-	204	198	2	27	23
Ohio	8	-	-	-	10	49	89	-	96	-	82	25	-	-	-
Ind	2	-	11	-	-	55	16	-	29	-	22	11	-	-	-
Ill	10	15	488	-	3	283	57	197	1,434	-	26	27	1	19	8
Mich	10	3	48	-	-	52	48	6	238	-	23	22	1	6	14
Wis	1	-	232	-	5	59	4	-	177	-	51	113	-	2	1
W.N. CENTRAL	18	8	273	-	17	10	83	3	80	11	90	78	-	10	19
Minn	5	-	43	-	4	5	16	-	1	4	37	20	-	-	2
Iowa	1	8	86	-	1	-	11	1	20	-	11	5	-	1	1
Mo	6	-	25	-	6	2	28	-	15	-	5	17	-	1	7
N. Dak	-	-	25	-	1	2	-	-	3	-	3	9	-	1	2
S. Dak	-	-	-	-	-	-	4	-	1	-	13	1	-	-	-
Nebr	4	-	-	-	-	-	9	-	-	-	-	4	-	-	-
Kans	2	-	94	-	5	1	15	2	40	7	21	22	-	7	7
S. ATLANTIC	69	55	493	-	52	225	313	1	142	28	511	214	1	10	43
Del	1	-	1	-	-	-	2	-	-	-	222	-	-	-	1
Md	12	-	20	-	9	60	44	1	13	24	123	92	-	-	3
D.C.	-	-	-	-	1	3	4	-	-	-	-	1	-	-	-
Va	14	-	33	-	24	22	52	-	27	-	20	5	-	-	2
W. Va	4	-	2	-	-	33	3	-	36	-	10	1	-	-	9
N.C.	4	-	2	-	1	9	51	-	14	3	30	12	-	-	-
S.C.	5	-	274	-	-	-	28	-	11	-	5	-	-	-	3
Ga	6	-	75	-	14	8	47	-	14	1	80	65	-	-	-
Fla	23	55	86	-	3	90	82	-	27	-	21	38	1	10	25
E.S. CENTRAL	14	4	59	-	2	2	94	2	23	1	25	17	1	2	2
Ky	4	3	3	-	-	-	23	2	5	1	2	3	1	2	2
Tenn	-	1	54	-	1	1	34	-	15	-	6	5	-	-	-
Ala	6	-	-	-	1	-	26	-	2	-	17	6	-	-	-
Miss	4	-	2	-	-	1	11	-	1	-	-	3	-	-	-
W.S. CENTRAL	44	11	572	-	33	372	136	1	140	4	103	173	2	55	28
Ark	-	-	276	-	2	-	13	-	7	-	7	12	-	-	1
La	5	1	4	-	-	42	17	-	2	-	6	8	-	-	-
Okla	8	5	34	-	2	1	19	N	N	4	62	102	-	-	1
Tex	31	5	258	-	29	329	81	1	131	-	28	51	2	55	26
MOUNTAIN	21	3	286	-	26	485	80	4	196	1	148	76	-	20	4
Mont	-	-	-	-	8	137	8	-	5	-	7	5	-	2	-
Idaho	1	-	1	-	-	134	2	-	4	-	31	5	-	-	1
Wyo	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-
Colo	7	-	2	-	5	6	13	-	11	-	41	30	-	1	-
N. Mex	2	3	29	-	7	3	6	N	N	-	16	9	-	-	2
Ariz	7	-	247	-	6	205	18	2	162	-	30	18	-	2	1
Utah	2	-	6	-	-	-	9	1	10	1	19	9	-	12	-
Nev	2	-	1	-	-	-	24	1	4	-	3	-	-	3	-
PACIFIC	249	14	466	1	48	229	329	7	213	8	184	221	24	192	128
Wash	18	8	131	1†	26	41	49	-	7	1	61	35	3	11	11
Oreg	15	-	2	-	4	3	22	N	N	-	9	21	-	1	1
Calif	216	6	314	-	17	167	247	5	190	6	105	135	21	176	74
Alaska	-	-	-	-	-	-	9	1	6	-	2	27	-	-	1
Hawaii	-	-	19	-	1	18	2	1	10	1	7	3	-	4	41
Guam	1	-	4	-	1	11	-	-	4	-	-	-	-	2	2
P.R.	4	-	33	-	-	48	2	-	20	-	9	7	-	58	23
V.I.	-	-	-	-	-	10	-	1	13	-	-	-	-	-	-
Pac. Trust Terr	-	-	-	-	-	-	1	-	5	-	-	-	-	-	-
Amer. Samoa	-	-	2	-	-	-	-	-	1	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending July 26, 1986 and July 27, 1985 (30th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tularemia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1986	Cum. 1985	1986	Cum. 1986	Cum. 1985	Cum. 1986	Cum. 1986	Cum. 1986	Cum. 1986
UNITED STATES	14,438	15,248	8	12,233	12,049	64	152	395	3,087
NEW ENGLAND	290	307	1	367	407		9	5	3
Maine	15	9	-	30	30	-	-	-	-
N.H.	10	7	-	10	15	-	-	-	-
Vt.	6	3	-	12	4	-	-	-	-
Mass.	152	161	1	181	248	-	7	2	-
R.I.	16	7	-	27	32	-	-	2	1
Conn.	91	120	-	107	78	-	2	1	2
MID ATLANTIC	2,091	1,981	-	2,483	2,238	1	15	11	362
Upstate N.Y.	98	140	-	357	369	-	2	3	45
N.Y. City	1,188	1,231	-	1,299	1,127	-	7	4	-
N.J.	387	393	-	435	302	1	5	1	11
Pa.	418	217	-	392	440	-	1	3	306
E.N. CENTRAL	605	654	2	1,468	1,465	-	12	48	73
Ohio	76	88	2	247	276	-	2	46	5
Ind.	67	61	-	155	180	-	1	-	12
Ill.	329	340	-	642	633	-	2	1	23
Mich.	99	127	-	354	291	-	5	1	16
Wis.	34	38	-	70	85	-	2	-	17
W.N. CENTRAL	137	134	1	349	318	19	6	22	503
Minn.	24	28	-	89	62	-	1	1	60
Iowa	6	15	1	29	41	1	-	1	115
Mo.	75	66	-	173	150	15	5	9	55
N. Dak.	2	2	-	4	3	-	-	-	112
S. Dak.	2	4	-	16	18	2	-	4	101
Nebr.	11	6	-	6	13	1	-	3	19
Kans.	17	13	-	32	31	-	-	4	41
S. ATLANTIC	4,191	4,402	1	2,353	2,450	8	19	177	718
Del.	31	20	-	26	24	-	-	1	-
Md.	255	233	-	170	218	2	5	18	364
D.C.	180	201		79	101	-	2	-	-
Va.	216	173	-	194	220	2	5	25	110
W. Va.	13	9	-	69	86	-	2	6	17
N.C.	299	394	-	334	307	1	2	60	4
S.C.	393	448	-	303	317	-	-	50	36
Ga.	637	772	-	354	397	3	-	16	107
Fla.	2,167	2,152	1	824	801	-	3	1	80
E.S. CENTRAL	970	1,196	-	1,068	1,079	6	1	53	167
Ky.	47	36	-	253	241	2	-	11	56
Tenn.	367	349	-	310	317	3	-	22	66
Ala.	316	391	-	340	332	1	-	12	54
Miss.	240	420	-	165	189	-	1	8	1
W.S. CENTRAL	3,037	3,537	3	1,579	1,466	27	12	72	474
Ark.	154	187	1	196	163	17	-	2	111
La.	512	614	-	266	195	1	-	-	14
Okla.	84	97	-	148	158	6	1	60	39
Tex.	2,287	2,639	2	969	950	3	11	10	310
MOUNTAIN	346	417	-	276	324	2	8	7	448
Mont.	6	2	-	16	46	-	1	4	156
Idaho	7	3	-	11	15	-	-	-	1
Wyo.	-	6	-	-	5	-	-	1	206
Colo.	86	101	-	22	40	-	1	2	4
N. Mex.	46	72	-	58	60	1	-	-	4
Ariz.	144	208	-	132	130	-	3	-	72
Utah	9	4	-	20	6	1	2	-	1
Nev.	48	21	-	17	22	-	1	-	4
PACIFIC	2,771	2,620	-	2,290	2,302	1	70	-	339
Wash.	52	73	-	116	125	-	3	-	2
Oreg.	63	50	-	79	79	-	-	-	-
Calif.	2,632	2,452	-	1,946	1,919	-	63	-	329
Alaska	1	2	-	33	66	1	1	-	8
Hawaii	23	43	-	117	113	-	3	-	-
Guam	1	2	-	32	28	-	-	-	-
P.R.	446	450	-	165	198	-	4	-	28
V.I.	-	1	-	1	1	-	-	-	-
Pac. Trust Terr.	164	80	-	35	38	-	39	-	-
Amer. Samoa	-	-	-	3	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending July 26, 1986 (30th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	631	431	114	49	18	19	38
Boston, Mass	171	109	32	17	4	9	15
Bridgeport, Conn	37	27	6	2	2	-	1
Cambridge, Mass	29	21	6	2	-	-	3
Fall River, Mass	26	20	4	2	-	-	-
Hartford, Conn	75	48	14	5	4	4	5
Lowell, Mass	31	20	6	4	-	1	1
Lynn, Mass	22	18	3	1	-	-	-
New Bedford, Mass	29	25	2	1	1	-	1
New Haven, Conn	50	30	12	5	2	1	3
Providence, R.I.	22	17	4	-	-	1	1
Somerville, Mass	5	3	1	1	-	-	-
Springfield, Mass	55	41	9	1	2	2	1
Waterbury, Conn	40	29	7	3	1	-	6
Worcester, Mass	39	23	8	5	2	1	1
MID ATLANTIC	2,393	1,550	521	210	64	48	119
Albany, N.Y.	33	23	4	2	1	3	1
Allentown, Pa	19	12	4	2	1	-	-
Buffalo, N.Y.	131	88	28	7	4	4	4
Camden, N.J.	33	23	6	2	1	1	-
Elizabeth, N.J.	24	19	4	1	-	-	-
Erie, Pa †	31	23	6	2	-	-	3
Jersey City, N.J.	28	20	6	2	-	-	-
N.Y. City, N.Y.	1,250	762	281	142	39	26	58
Newark, N.J.	49	22	13	9	3	2	3
Paterson, N.J.	22	13	5	3	1	-	1
Philadelphia, Pa §	340	232	77	23	3	5	16
Pittsburgh, Pa †	63	44	13	3	-	3	1
Reading, Pa	31	22	8	1	-	-	1
Rochester, N.Y.	125	92	22	3	5	3	23
Schenectady, N.Y.	25	19	5	-	1	-	1
Scranton, Pa †	32	20	10	1	1	-	3
Syracuse, N.Y.	74	54	14	2	3	1	2
Trenton, N.J.	21	13	4	3	1	-	1
Utica, N.Y.	21	17	4	-	-	-	-
Yonkers, N.Y.	41	32	7	2	-	-	1
E.N. CENTRAL	2,291	1,454	510	172	71	84	68
Akron, Ohio	74	50	19	1	1	3	2
Canton, Ohio	37	24	10	2	-	1	2
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	110	68	27	5	2	8	7
Cleveland, Ohio	147	90	30	15	4	8	1
Columbus, Ohio	175	102	38	17	6	12	1
Dayton, Ohio	93	47	26	14	1	5	2
Detroit, Mich	277	157	69	29	16	6	5
Evansville, Ind	42	30	6	4	-	2	2
Fort Wayne, Ind	62	44	13	4	1	-	6
Gary, Ind	15	6	4	5	-	-	-
Grand Rapids, Mich	52	33	15	-	1	3	-
Indianapolis, Ind	164	101	37	10	12	4	3
Madison, Wis	47	27	9	6	4	1	4
Milwaukee, Wis	127	97	19	5	2	4	3
Peoria, Ill	47	33	11	-	2	1	1
Rockford, Ill	48	34	11	1	2	-	2
South Bend, Ind	47	35	8	2	2	-	5
Toledo, Ohio	101	74	18	4	4	1	4
Youngstown, Ohio	62	40	15	3	1	3	-
W.N. CENTRAL	675	480	105	48	20	22	24
Des Moines, Iowa	77	54	16	5	1	1	2
Duluth, Minn	23	17	5	-	1	-	2
Kansas City, Kans	16	9	2	1	1	3	1
Kansas City, Mo	119	84	18	10	4	3	5
Lincoln, Nebr	31	24	4	3	-	-	-
Minneapolis, Minn	68	57	8	2	2	1	1
Omaha, Nebr	75	37	20	9	2	7	3
St. Louis, Mo	133	103	11	10	4	5	6
St. Paul, Minn	74	51	13	6	4	-	-
Wichita, Kans	59	44	10	2	1	2	4
S. ATLANTIC	1,207	721	272	111	49	52	46
Atlanta, Ga	173	110	32	17	6	8	1
Baltimore, Md	203	122	45	18	8	10	10
Charlotte, N.C.	81	49	19	6	4	3	4
Jacksonville, Fla	94	62	20	3	7	2	9
Miami, Fla	105	67	28	8	-	2	-
Norfolk, Va	49	21	14	8	1	5	1
Richmond, Va	75	41	18	4	5	7	4
Savannah, Ga	57	39	11	3	3	1	5
St. Petersburg, Fla	88	67	14	3	2	2	5
Tampa, Fla	70	42	16	3	4	3	3
Washington, D.C. §	186	86	45	37	9	9	4
Wilmington, Del	26	15	10	1	-	-	-
E.S. CENTRAL	737	455	171	55	26	30	23
Birmingham, Ala	111	62	30	8	5	6	2
Chattanooga, Tenn	61	40	14	3	1	3	3
Knoxville, Tenn	88	53	17	10	5	3	4
Louisville, Ky	102	63	22	11	4	2	2
Memphis, Tenn §	157	94	37	11	7	8	8
Mobile, Ala	60	40	14	2	1	3	-
Montgomery, Ala	37	20	12	1	1	3	-
Nashville, Tenn	121	83	25	9	2	2	4
W.S. CENTRAL	1,471	828	374	152	56	61	42
Austin, Tex	75	46	12	15	1	1	3
Baton Rouge, La	40	27	8	4	1	-	2
Corpus Christi, Tex	48	30	10	4	1	3	-
Dallas, Tex	195	99	51	23	10	12	3
El Paso, Tex	52	20	17	8	5	2	2
Fort Worth, Tex	101	63	18	9	7	4	5
Houston, Tex	418	222	121	43	12	20	7
Little Rock, Ark	83	48	24	4	2	5	7
New Orleans, La	133	82	30	13	6	2	-
San Antonio, Tex	164	81	42	21	10	10	7
Shreveport, La	85	59	18	5	1	2	1
Tulsa, Okla	77	51	23	3	-	-	5
MOUNTAIN	570	352	112	60	30	15	15
Albuquerque, N.Mex	74	43	13	9	7	2	2
Colo. Springs, Colo	33	21	6	5	1	-	3
Denver, Colo	81	50	15	10	5	1	1
Las Vegas, Nev	82	43	23	12	3	1	5
Ogden, Utah	21	13	4	-	1	3	1
Phoenix, Ariz	132	83	27	14	6	2	2
Pueblo, Colo	17	13	3	1	-	-	-
Salt Lake City, Utah	41	21	6	5	3	5	-
Tucson, Ariz	89	65	15	4	4	1	1
PACIFIC	1,891	1,237	343	182	75	49	94
Berkeley, Calif	18	13	3	2	-	-	1
Fresno, Calif	79	48	16	11	2	2	5
Glendale, Calif	25	21	2	2	-	-	2
Honolulu, Hawaii	65	50	8	5	-	2	3
Long Beach, Calif	122	80	25	10	2	5	9
Los Angeles, Calif	549	345	101	62	29	10	17
Oakland, Calif	69	45	10	9	4	1	3
Pasadena, Calif	27	22	2	1	1	1	1
Portland, Oreg	104	71	17	10	4	2	3
Sacramento, Calif	154	93	29	13	11	7	9
San Diego, Calif	129	87	23	11	6	2	10
San Francisco, Calif	138	89	24	18	2	5	7
San Jose, Calif	184	116	34	17	9	6	17
Seattle, Wash	127	76	31	10	4	6	2
Spokane, Wash	56	45	10	-	1	-	2
Tacoma, Wash	45	36	8	1	-	-	3
TOTAL	11,866††	7,508	2,522	1,039	409	380	467

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*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages

§ Data not available. Figures are estimates based on average of past 4 weeks.

Acute Respiratory Illness – Continued

Reported by P Asmussen, MPH, WL Duff, ER Heidtman, Middletown City Health Dept, CJ Burress, AM Richmond, MD, Middletown Social and Health Center, Ohio; Hazard Evaluations and Technical Assistance Br, Div of Surveillance, Hazard Evaluations, and Field Studies, National Institute for Occupational Safety and Health, CDC.

Editorial Note: In 1975, an apparent toxic pulmonary illness was reported among 10 farmers who became ill several hours after removing moldy silage (*1,2*). The authors of that report referred to the illness as "pulmonary mycotoxicosis" because the etiology presumably involved toxic components of inhaled fungal organisms (*1*). Others have recognized an apparently identical syndrome but have applied other names to it. Thus, it has been variously referred to as (1) "silo unloader's syndrome" to contrast it with silo filler's disease, a toxic pulmonary edema following inhalation of the oxides of nitrogen in freshly filled silos (*3*); (2) "precipitin test negative farmer's lung" to emphasize its clinical similarities to and its pathogenetic differences from farmer's lung disease, an immunologic lung response to microbial antigens in moldy hay (*4*); and (3) "organic dust toxic syndrome" (ODTS), a generic designation to emphasize that mycotoxin exposure is not a necessary prerequisite and that the syndrome is not restricted to either silo exposures or farming occupations. A striking similarity has been recognized between ODTS and "mill fever" in cotton textile workers, "grain fever" in grain elevator workers, and "humidifier fever" in building occupants exposed to air from highly contaminated ventilation systems (*3,5*). Similar to the current report, moldy wood chips were etiologically linked to symptoms of ODTS in individuals exposed to dust from wood chips that had been stored in basements as a fuel source for wood-burning furnaces (*6*).

Epidemiologically, ODTS often occurs in small outbreaks, with illness affecting all or most individuals who have had intense exposure to microbially contaminated vegetable dust (*3,9*). The syndrome is clinically characterized as an acute febrile illness with respiratory symptoms; onset usually occurs 4-12 hours after exposure. General malaise, headache, and cough are common symptoms, while dyspnea is variably present. Chest auscultation usually reveals normal breath sounds; the chest x-ray is remarkably clear; and pulmonary function may be only slightly impaired. Leukocytosis with a predominance of polymorphonuclear leukocytes is the rule, and serologic testing for precipitating antibodies associated with farmer's lung disease is usually negative.

With removal from exposure, ODTS is a self-limited illness, occasionally resolving within 24 hours, often within several days, and sometimes only after a few weeks. To date, no deaths have been reported, and there is no evidence for residual pulmonary fibrosis. Some individuals, however, have been hospitalized with severe symptoms, and a few have undergone diagnostic bronchoscopy and lung biopsy. Bronchoalveolar lavage has revealed a predominance of PMNs, and biopsy has demonstrated an acute inflammation without granulomas, as well as an assortment of microorganisms in the airways (*1*).

ODTS probably occurs much more frequently than is currently recognized. Only serious solitary cases or those that occur in suspicious clusters are likely to come to medical attention, and when a history of environmental exposure is elicited, these are often misdiagnosed by physicians as silo filler's disease or farmer's lung disease (*3*). Because the incidence, etiologic agent(s), and pathogenesis of ODTS remain unknown, physicians are encouraged to report to appropriate health authorities any influenza-like illness following intense exposures to organic dust. Based on current understanding, symptomatic treatment alone should suffice. Prevention measures should include storing vegetable matter in a way that limits microbial growth and wearing appropriate respiratory protection when intense exposure to organic dusts cannot be avoided.

Acute Respiratory Illness – Continued

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Notice to Readers

Release of Botulism Antitoxin

Botulism antitoxin for patients with signs and symptoms of human foodborne or wound botulism is released to physicians by CDC from its quarantine stations located throughout the United States. Any health-care provider requesting botulism antitoxin should first contact his/her state health department. A list of daytime and 24-hour telephone numbers (if available) is published to assist those seeking botulism antitoxin (Table 2). If the state health department is unreachable during nights or on weekends, CDC may be called at (404) 329-2888 (24-hour number)

When botulism is suspected, a careful food history, especially for home-canned vegetables or fruits, should be sought, and the suspected food items, saved. Stool and serum should be obtained from patients with possible botulism and refrigerated. Electromyography should be done using repetitive stimulation at 40 Hz or greater. When indicated, cerebrospinal fluid should be examined for white blood cells and protein, and a Tensilon challenge test should be done. The patient's vital capacity should be monitored. The results of these tests are helpful in evaluating the need for botulism antitoxin.

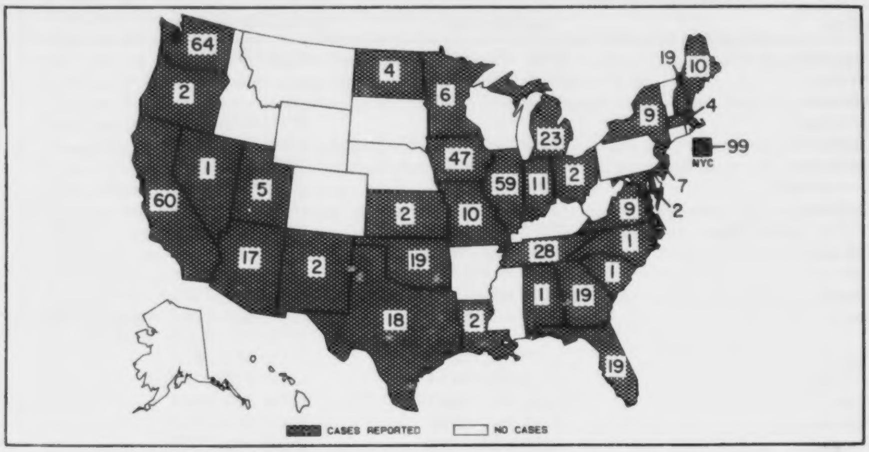
Reported by Enteric Diseases Br, Div of Bacterial Diseases, Center for Infectious Diseases, CDC.

Botulism Antitoxin – Continued

TABLE 2. Telephone numbers for requesting botulism antitoxin

State	Daytime no.	24-hour or night no.	
Alabama	(205) 261-5131	(205) 277-8660	
Alaska	(907) 561-4406		
Arizona	(602) 255-1280		
Arkansas	(501) 661-2597	(501) 661-2136	
California	(415) 540-2566	(415) 540-2308	
Colorado	(303) 331-8330	(303) 370-9395	
Connecticut	(203) 566-2540	(203) 566-4800	
Delaware	(302) 856-5152	(302) 736-4714	
District of Columbia	(202) 673-6757	(202) 727-1000	
Florida	(904) 487-2905		
Georgia	(404) 894-6527		
Hawaii	(808) 548-4580	(808) 247-2191	
Idaho	(208) 334-5941	(208) 334-2241 (800) 632-8000	(out of state) (in state)
Illinois	(217) 782-2016	(217) 782-7860	
Indiana	(317) 633-8414	(317) 633-0144	
Iowa	(515) 281-5643	(515) 281-3561	
Kansas	(913) 862-9360	(913) 862-9360	
Kentucky	(502) 564-3418	(502) 564-7078	
Louisiana	(504) 568-5005		
Maine	(207) 289-3591	(800) 821-5821	
Maryland	(301) 225-6677	(301) 243-8700	
Massachusetts	(617) 522-3700	(617) 522-3700	
Michigan	(517) 335-8165	(517) 335-9030	
Minnesota	(612) 623-5414	(612) 623-5414	
Mississippi	(601) 354-6660	(601) 354-6612	
Missouri	(314) 751-8129	(314) 751-2335	
Montana	(406) 444-4740	(406) 444-4740	
Nebraska	(402) 471-2937	(402) 471-2927	
Nevada	(702) 885-4988		
New Hampshire	(603) 271-4477	(800) 852-3345	
New Jersey	(609) 292-7300	(609) 392-2020	
New Mexico	(505) 827-0006	(505) 827-0006	
New York City	(212) 566-7160	(212) 340-4494	
New York State	(518) 474-3186	(518) 465-9720	
North Carolina	(919) 733-3421	(919) 733-4646	
North Dakota	(701) 224-2378	(701) 224-2398 (800) 472-2180	(out of state) (in state)
Ohio	(614) 466-0265		
Oklahoma	(405) 271-4060	(405) 271-4060	
Oregon	(503) 229-5792	(503) 229-5599	
Pennsylvania	(717) 787-3350	(717) 737-5349	
Rhode Island	(401) 277-2362	(401) 277-2840	
South Carolina	(803) 758-7970		
South Dakota	(605) 773-3357		
Tennessee	(615) 741-7247	(615) 741-3011	
Texas	(512) 458-7207	(512) 458-7111	
Utah	(801) 538-6191		
Vermont	(802) 863-7240	(802) 863-7240	
Virginia	(804) 786-6261	(804) 786-4000	
Washington	(206) 361-2914	(206) 464-6289	
West Virginia	(304) 348-3530	(304) 744-2678	
Wisconsin	(608) 267-9003	(608) 238-5064	
Wyoming	(307) 777-6018		

FIGURE I. Reported measles cases — United States, weeks 26-29, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report,* Centers for Disease Control, Atlanta, Georgia 30333.

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MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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Epidemiologic Notes and Reports

Aedes albopictus Infestation — United States, Brazil

United States. In August 1985, an established infestation of *Aedes albopictus*, an exotic mosquito species, was discovered in Houston (Harris County), Texas (*1,2*). In 1986, with the advent of warm weather and spring rainfall, efforts were begun to determine the extent of this infestation. During April and May, *Ae. albopictus* was found in counties adjacent to Houston; in New Orleans, Louisiana, and surrounding parishes; and in Memphis, Tennessee. In June and early July, the mosquito was reported from Gulfport, Mississippi, and Jacksonville, Florida.

A systematic survey of 41 cities and towns in six southern states was conducted in July 1986. Because of the propensity of *Ae. albopictus* to oviposit in discarded tires containing rainwater, sites selected for survey were used-tire dumps, dealers, and recappers. *Ae. albopictus* was found to be widely disseminated in the southern United States but to have a spotty and discontinuous distribution (Figure 1). In many sites, *Ae. albopictus* was abundant and aggressively biting humans. The presence of *Ae. aegypti* in an area did not appear to retard the ingress of *Ae. albopictus; Ae. albopictus* had replaced *Ae. aegypti* in many locations.

The extent of *Ae. albopictus* distribution in the United States remains incompletely known. Efforts are under way to extend surveillance to other states, including those in the north-central United States where California encephalitis group viruses are endemic. The Houston population of *Ae. albopictus* has been shown in the laboratory to resemble northern Asian populations that are capable of diapause, i.e., cessation of egg-hatching following exposure of pupae to short day-length intervals. This indicates that *Ae. albopictus* would be capable of overwinter survival in northern latitudes.

Brazil. *Ae. albopictus* has been found in Rio de Janeiro and in two neighboring states, Espirito Santo and Minas Gerais. Identification of the species was confirmed by entomologists from the Oswaldo Cruz Institute and Pan American Health Organization. At present, there is no indication that *Ae. albopictus* is involved in virus transmission in Brazil.

Reported by GB Craig, PhD, Notre Dame University, Notre Dame, Indiana; D Womeldorf, J Walsh, Vector Surveillance and Control Br, California Dept of Health Svcs; D Sykes, Gulfport Mosquito Control District, E Bowles, Mississippi State Dept of Health; P Scheppf, A Lowe, Ouachita Mosquito Control District, C Greer, Rapides Parish Health Dept, GC Clement, M Ponder, Caddo Parish Mosquito Control, C Anderson, L Amberg, Louisiana Dept of Health and Human Resources; M Nelms, Dade County Health Dept, AN Davis, Broward County Mosquito Control, R Day, Palm Beach County Mosquito Control, J Gorman, J Ward, Hillsborough County Mosquito Control, J Shinholser, Pinellas County Anti-Mosquito District, G Alexander, Orange County Mosquito Control District, F Evans, St. Lucie County Mosquito Control District, L Scherer, Martin County Dept of Environmental Svcs, J Robinson, W. Pascou County Mosquito Control

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES / PUBLIC HEALTH SERVICE

E 20. 7009:

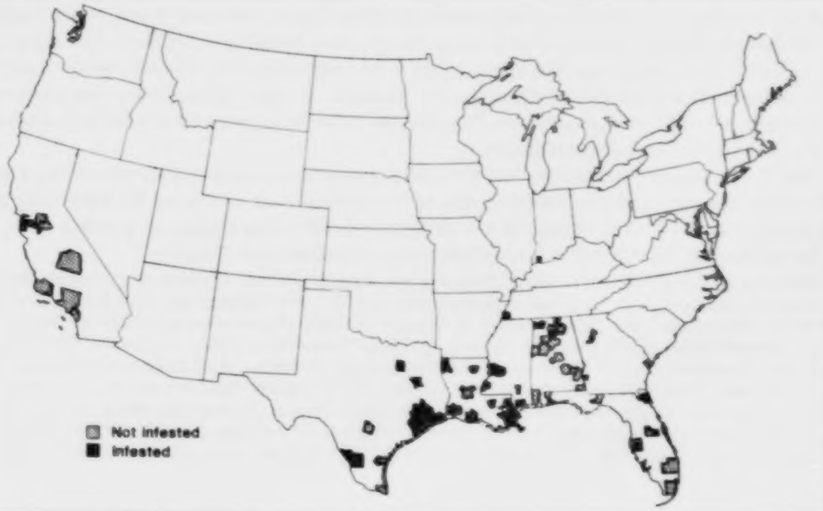
Aedes albopictus — *Continued*

District, JB Hunt, Osceola County Dept of Environmental Svcs, B Eddins, Escambia County Mosquito Control, S Goodwin, Leon County Health Dept, P Simmonds, B Peacock, Jacksonville Health Dept, J Mulrennan, PhD, Office of Entomology, Florida Dept of Health and Rehabilitative Svcs; J Heusel, Chatham County Mosquito Control District, D Bouge, R Patterson, Fulton County Health Dept, RK Sikes, DVM, State Epidemiologist, Georgia Dept of Human Resources; J Sikes, Tuscaloosa County Health Dept, B Houck, Madison County Health Dept, G Bennett, Houston County Health Dept, P Pate, J Hammick, Jefferson County Health Dept, CF Erdman, Mobile County Health Dept, C Cork, JT Collier, Alabama State Dept of Public Health; Ministry of Health, Brasilia, Brazil; Pan American Health Organization, Washington, DC; Div of Parasitic Diseases, Div of Vector-Borne Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: *Ae. albopictus*, the Asian "tiger mosquito," has been repeatedly implicated in epidemic dengue and dengue hemorrhagic fever transmission in Asia (*3,4*). Laboratory studies have shown it to be a more efficient vector of dengue virus than *Ae. aegypti* (*5*) and a competent vector of California encephalitis group viruses (*6*), yellow fever virus (*7*), epidemic polyarthritis (Ross River) virus (*8*), and other agents. *Ae. albopictus* has not been incriminated in the spread of any viral disease in the Americas, but it represents a public health concern because of its potential to infest areas where dengue, yellow fever, or pathogenic California group viruses are present and, once introduced into such areas, to spread these viruses into areas previously free of them.

The discontinous distribution of *Ae. albopictus* in the southern United States found during the recent survey suggests the infestation may be contained through programs of surveillance, removal of breeding sites (especially tires), interruption of interstate dispersal of tires, and judicious use of insecticides in breeding sites. Studies are presently under way at CDC in collaboration with state and local agencies to determine the feasibility of these approaches. Critical features of the program include delineation of the full distribution of *Ae. albopictus*, determination of the vector's routes of spread from infested areas, and definition of the biologic attributes of the mosquito that relate to control.

FIGURE 1. Distribution of *Aedes albopictus*, by counties reporting — United States, as of July 25, 1986



Aedes albopictus – *Continued*

The recent report that *Ae. albopictus* is established in Brazil is especially relevant because of the occurrence of a dengue type 1 epidemic in Rio de Janeiro and several other locations. Although evidence indicates that *Ae. aegypti* was the principal epidemic vector, it will now be important to determine the possible contribution of *Ae. albopictus* to dengue transmission. In addition, since *Ae. albopictus* is capable of breeding in tree holes and similar woodland habitats, as well as in urban environments, it may potentially serve as a link between jungle yellow fever and urban transmission of this virus in Brazil.

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Current Trends

Decrease in Lung Cancer Incidence among Males — United States, 1973-1983

Analysis of lung cancer data from the National Cancer Institute's Surveillance, Epidemiology, and End Results Program (SEER)* (*1*) indicates that the incidence rate of lung cancer for white males increased at annual rates of up to 10% per year until the 1970s. In the early 1980's, the rate of increase slowed, then leveled. This was followed by a 4% decrease in rates from 1982 to 1983 (*2*). It is estimated that the leveling and subsequent decrease in lung cancer incidence has resulted in over 7,000 fewer cases in 1983 alone. This estimate was developed by fitting an exponential model to the incidence data for 1973 through 1978 and extrapolating the expected numbers from the model to 1983

Both incidence and mortality due to lung cancer have been decreasing for men under 45 years of age since at least 1973, and for men between 45 and 54 years of age, since 1978. For men over 54 years of age, the rates have leveled. Data for black males show age-adjusted

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*SEER data are monitored routinely for trends in cancer incidence. SEER incidence data covers the population of the states of Connecticut, Hawaii, Iowa, New Mexico, and Utah and the metropolitan areas of Atlanta, Detroit, San Francisco-Oakland, and Seattle and represent approximately 10% of the U.S. population.

Lung Cancer – Continued

incidence rates that are approximately 50% higher than for whites; however, the trends in rates are similar in the two groups. Lung cancer mortality data for U.S. men have leveled to an age-adjusted rate of 71.2 in 1983. Mortality rates for black males have leveled to an age-adjusted rate of 97.3 in 1983. Because survival from lung cancer is poor, it is expected that decreases in lung cancer mortality will be noted in the 1984 data.

Lung cancer incidence and mortality rates for females continued to increase markedly during the same period. Age-adjusted incidence and mortality rates of 32.6 and 24.3, respectively, represented over 41,000 new cases of lung cancer and over 35,000 deaths among U.S. women in 1983.

Reported by JW Horm, MS, LG Kessler, PhD, Surveillance and Operations Research Br, LP Boss, PhD, Cancer Control Applications Br, Div of Cancer Prevention and Control, National Cancer Insititute.

Editorial Note: Approximately 15% of all invasive cancers diagnosed annually are cancer of the lung, and roughly 149,000 new cases and 130,000 deaths are expected in 1986 (*3*). It has long been established that cigarette smoking is the primary cause of lung cancer in the United States. The Surgeon General's report on smoking and health, published in 1964, was

(Continued on page 501)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease		31st Week Ending			Cumulative, 31st Week Ending		
		Aug. 2, 1986	Aug. 3, 1985	Median 1981-1985	Aug. 2, 1986	Aug. 3, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)		192	188	N	7,262	4,478	N
Aseptic meningitis		341	325	336	3,815	3,431	3,507
Encephalitis	Primary (arthropod-borne & unspec.)	29	23	38	515	589	608
	Post-infectious	-	3	1	63	86	60
Gonorrhea	Civilian	17,524	18,604	18,604	501,752	513,903	524,170
	Military	359	389	613	9,396	12,500	14,093
Hepatitis	Type A	455	593	414	12,845	12,835	12,835
	Type B	616	619	497	15,263	14,986	13,908
	Non A, Non B	87	105	N	2,097	2,453	N
	Unspecified	103	143	143	2,786	3,385	4,257
Legionellosis		15	15	N	358	416	N
Leprosy		5	7	5	168	218	152
Malaria		36	41	22	569	577	577
Measles	Total*	98	38	33	4,732	2,161	2,145
	Indigenous	91	29	N	4,499	1,824	N
	Imported	7	9	N	233	337	N
Meningococcal infections	Total	43	33	43	1,675	1,597	1,888
	Civilian	43	33	43	1,673	1,591	1,884
	Military	-	-	-	2	6	9
Mumps		79	35	33	3,019	2,075	2,310
Pertussis		88	131	58	1,567	1,242	1,202
Rubella (German measles)		5	9	10	360	447	728
Syphilis (Primary & Secondary)	Civilian	533	500	596	15,013	15,748	17,749
	Military	3	1	4	105	113	230
Toxic Shock syndrome		10	6	N	212	234	N
Tuberculosis		438	445	443	12,684	12,494	13,664
Tularemia		5	4	8	69	101	135
Typhoid fever		3	10	10	154	200	221
Typhus fever, tick-borne (RMSF)		27	26	44	423	374	640
Rabies, animal		71	11[illegible]	107	3,203	3,144	3,759

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum. 1986
Anthrax	-	Leptospirosis	22
Botulism: Foodborne	5	Plague	4
Infant	28	Poliomyelitis, Paralytic	-
Other	1	Psittacosis (Pa. 1, Wash. 1, Alaska 1)	56
Brucellosis (Ark. 1, Tex. 1)	40	Rabies, human	-
Cholera	-	Tetanus (Ill. 1, Okla. 1, Tex. 2)	34
Congenital rubella syndrome	2	Trichinosis	20
Congenital syphilis, ages < 1 year	11	Typhus fever, flea-borne (endemic, murine)(Tex. 5, Hawaii 1)	29
Diphtheria	-		

*Five of the 98 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending August 2, 1986 and August 3, 1985 (31st Week)

Reporting Area	AIDS	Aseptic Menin-gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel-losis	Leprosy
			Primary	Post-in-fectious			A	B	NA,NB	Unspeci-fied		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	7,262	341	515	63	501,752	513,903	455	616	87	103	15	168
NEW ENGLAND	321	14	14	3	12,124	13,958	8	62	1	6	1	6
Maine	12	5	-	-	535	630	-	11	1	-	-	-
N H	6	2	2	-	311	324	-	-	-	-	1	-
Vt	3	1	2	2	159	183	-	2	-	-	-	-
Mass	164	6	3	-	4,996	5,388	4	32	-	6	-	6
R I	19	-	-	-	1,004	1,068	-	6	-	-	-	-
Conn	117	-	7	1	5,119	6,365	4	11	-	-	-	-
MID ATLANTIC	2,784	18	66	6	86,997	74,802	10	32	8	15	-	11
Upstate N Y	236	7	25	4	10,143	9,854	5	11	7	-	-	1
N Y City	1,887	1	14	-	51,519	37,852	-	1	-	14	-	9
N J	474	10	10	-	10,867	11,400	5	20	1	1	-	-
Pa	187	-	17	2	14,468	15,696	-	-	-	-	-	1
E N CENTRAL	444	92	131	9	66,068	68,306	22	36	3	4	1	4
Ohio	100	14	38	2	16,910	17,169	11	10	1	1	1	-
Ind	42	17	29	3	7,009	7,242	4	7	1	2	-	-
Ill	206	35	28	3	18,498	18,211	3	2	-	-	-	3
Mich	78	26	31	1	20,998	19,314	4	17	1	1	-	1
Wis	18	-	5	-	2,653	6,370	-	-	-	-	-	-
W N CENTRAL	143	16	19	8	22,162	23,801	8	15	4	1	4	2
Minn	56	5	10	-	3,101	3,473	-	1	-	-	-	1
Iowa	10	1	6	-	2,188	2,559	-	-	2	1	1	-
Mo	49	1	-	-	11,176	11,339	1	10	-	-	1	-
N Dak	2	-	-	-	190	159	-	-	-	-	-	-
S Dak	1	6	2	-	453	434	3	1	2	-	-	-
Nebr	6	2	-	1	1,669	2,123	-	-	-	-	2	-
Kans	19	1	1	7	3,385	3,714	4	3	-	-	-	1
S ATLANTIC	885	70	68	22	124,860	132,761	37	114	10	4	3	1
Del	16	-	4	-	2,099	2,401	1	-	-	-	-	-
Md	100	5	21	1	15,261	17,207	4	11	-	1	1	-
D C	132	-	-	1	9,742	8,899	-	3	-	-	-	-
Va	97	-	21	1	10,755	10,961	-	-	-	-	-	1
W Va	5	4	10	-	1,340	1,469	1	1	-	1	-	-
N C	41	19	10	1	20,646	20,298	-	8	-	-	-	-
S C	21	-	-	-	11,592	12,932	-	17	1	-	-	-
Ga	138	27	-	1	15,862	26,655	10	40	4	-	1	-
Fla	335	15	2	17	37,563	31,938	21	34	5	2	1	-
E S CENTRAL	99	10	32	3	41,347	42,928	9	26	2	-	-	1
Ky	19	-	13	1	4,628	4,834	6	3	1	-	-	-
Tenn	53	2	3	1	15,997	16,744	1	6	1	-	-	-
Ala	17	7	15	1	11,731	13,319	-	13	-	-	-	1
Miss	10	1	1	-	8,991	8,031	2	4	-	-	-	
W S CENTRAL	480	33	69	3	61,326	65,166	53	56	9	37	4	12
Ark	21	-	-	-	5,619	6,364	1	1	-	1	1	-
La	100	4	3	-	10,958	12,784	3	13	1	-	-	1
Okla	27	2	14	-	6,838	6,879	6	8	4	2	1	-
Tex	332	27	52	3	37,911	39,139	43	34	4	34	2	11
MOUNTAIN	197	15	19	1	15,051	16,007	66	47	8	10	1	11
Mont	4	1	-	1	436	435	2	2	-	-	-	-
Idaho	2	2	-	-	497	499	-	2	1	1	-	-
Wyo	4	-	2	-	335	382	-	-	-	-	-	-
Colo	100	-	3	-	3,894	4,777	6	5	1	2	-	3
N Mex	11	1	2	-	1,530	1,821	7	-	-	1	-	-
Ariz	48	8	8	-	4,849	4,806	48	29	3	4	1	5
Utah	10	3	3	-	642	694	1	3	2	-	-	1
Nev	18	-	1	-	2,868	2,593	2	6	1	2	-	2
PACIFIC	1,909	73	97	8	71,817	76,174	242	228	42	26	1	120
Wash	82	1	10	-	5,385	5,527	34	41	9	3	1	14
Oreg	35	-	-	-	2,859	3,703	16	7	1	-	-	-
Calif	1,759	66	85	8	61,085	64,079	188	176	32	23	-	84
Alaska	9	-	2	-	1,656	1,803	4	3	-	-	-	-
Hawaii	24	6	-	-	832	1,062	-	1	-	-	-	22
Guam	-	-	-	-	105	119	-	-	-	1	-	1
P R	62	4	3	-	1,350	2,099	3	7	-	2	-	7
V I	2	U	-	-	139	300	U	U	U	U	U	-
Pac Trust Terr	-	-	-	-	255	574	4	-	-	1	-	31
Amer Samoa	-	-	-	-	30	-	-	1	-	-	-	1

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 2, 1986 and August 3, 1985 (31st Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	569	91	4,499	7	233	2,161	1,675	79	3,019	88	1,567	1,242	5	380	447
NEW ENGLAND	30	-	74	-	6	119	117	-	49	-	97	63	-	9	11
Maine	1	-	10	-	-	-	23	-	-	-	2	4	-	-	-
N.H.	2	-	37	-	-	-	6	-	13	-	46	29	-	1	2
Vt	1	-	-	-	-	-	15	-	2	-	3	3	-	1	-
Mass	15	-	24	-	5	112	25	-	6	-	27	10	-	4	6
R.I.	4	-	2	-	-	-	15	-	9	-	3	11	-	2	-
Conn	7	-	1	-	1	7	33	-	19	-	16	6	-	1	3
MID ATLANTIC	65	39	1,421	-	20	188	268	4	127	4	120	85	-	30	183
Upstate N.Y.	23	-	43	-	19	82	90	1	51	2	79	48	-	22	17
N.Y. City	18	39	480	-	1	57	55	-	5	-	3	9	-	5	142
N.J.	7	-	876	-	-	26	29	1	32	-	9	3	-	3	11
Pa	17	-	22	-	-	23	94	2	39	2	29	25	-	-	13
E.N. CENTRAL	36	-	806	-	18	504	221	56	2,030	6	210	224	-	27	26
Ohio	10	-	-	-	10	52	89	3	99	5	87	25	-	-	-
Ind	2	-	11	-	-	56	17	2	31	-	22	11	-	-	1
Ill	13	-	515	-	3	285	59	51	1,485	1	27	27	-	19	10
Mich	10	-	48	-	-	52	52	-	238	-	23	27	-	6	14
Wis	1	-	232	-	5	59	4	-	177	-	51	134	-	2	1
W.N. CENTRAL	20	3	276	-	17	11	83	1	81	10	100	82	-	10	19
Minn	5	-	43	-	4	6	15	-	1	-	37	20	-	-	2
Iowa	1	3	89	-	1	-	11	1	21	-	11	5	-	1	1
Mo	8	-	25	-	6	2	28	-	15	3	8	20	-	1	7
N. Dak	-	-	25	-	1	2	-	-	3	-	3	9	-	1	2
S. Dak	-	-	-	-	-	-	4	-	1	-	13	1	-	-	-
Nebr	4	-	-	-	-	-	9	-	-	-	-	4	-	-	-
Kans	2	-	94	-	5	1	15	-	40	7	28	23	-	7	7
S. ATLANTIC	70	5	498	-	53	228	319	3	145	17	528	249	-	10	46
Del	1	-	1	-	-	-	2	-	-	-	222	-	-	-	1
Md	12	-	20	-	9	60	44	-	13	-	123	113	-	-	6
D.C.	-	-	-	-	2	5	4	-	-	-	-	1	-	-	-
Va	14	2	35	-	24	22	52	2	29	3	23	8	-	-	2
W. Va	4	-	2	-	-	33	3	1	37	8	18	2	-	-	9
N.C.	4	-	2	-	1	9	55	-	14	3	33	13	-	-	-
S.C.	5	-	274	-	-	-	28	-	11	-	5	-	-	-	3
Ga	6	3	78	-	14	8	49	-	14	3	83	72	-	-	-
Fla	24	-	86	-	3	91	82	-	27	-	21	40	-	10	25
E.S. CENTRAL	14	-	56	2	7	2	95	-	23	2	27	17	-	2	2
Ky	4	-	-	2§	5	-	23	-	5	-	2	3	-	2	2
Tenn	-	-	54	-	1	1	34	-	15	1	7	5	-	-	-
Ala	6	-	-	-	1	-	27	-	2	1	18	6	-	-	-
Miss	4	-	2	-	-	1	11	-	1	-	-	3	-	-	-
W.S. CENTRAL	54	7	579	1	34	385	145	4	144	9	112	184	-	55	28
Ark	-	-	276	-	2	-	20	-	7	1	8	12	-	-	1
La	8	-	4	-	-	42	21	-	2	1	7	9	-	-	-
Okla	8	3	37	-	2	1	19	N	N	7	69	112	-	-	1
Tex	38	4	262	1†	30	342	85	4	135	-	28	51	-	55	26
MOUNTAIN	22	2	288	-	26	486	80	2	198	9	158	96	-	20	4
Mont	-	-	-	-	8	137	8	-	5	-	7	5	-	2	-
Idaho	1	-	1	-	-	134	2	-	4	-	31	6	-	-	1
Wyo	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-
Colo	7		2		5	6	13	-	11	2	43	32	-	1	-
N. Mex	2	2	31	-	7	4	6	N	N	-	16	9	-	-	2
Ariz	7	-	247	-	6	205	16	2	164	6	36	20	-	2	1
Utah	2	-	6	-	-	-	9	-	10	1	21	24	-	12	-
Nev	3	-	1	-	-	-	24	-	4	-	3	-	-	3	-
PACIFIC	258	35	501	4	52	238	347	9	222	31	215	242	5	197	128
Wash	19	-	131	-	26	41	49	-	7	7	68	43	-	11	11
Oreg	15	1	3	-	4	3	22	N	N	1	10	21	-	1	1
Calif	223	34	348	4†	21	175	264	5	195	22	127	147	5	181	74
Alaska	-	-	-	-	-	-	10	-	6	-	2	27	-	-	1
Hawaii	1	-	19	-	1	19	2	4	14	1	8	4	-	4	41
Guam	1	-	4	-	1	11	1	-	4	-	-	-	1	3	2
P.R.	4	-	33	-	-	48	2	-	20	2	11	7	-	58	23
V.I.	-	U	-	U	-	10	-	U	13	U	-	-	U	-	-
Pac. Trust Terr	-	-	-	-	-	-	1	2	7	-	-	-	1	1	-
Amer. Samoa	-	-	2	-	-	-	-	2	3	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 2, 1986 and August 3, 1985 (31st Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	15,013	15,748	10	12,684	12,494	69	154	423	3,203
NEW ENGLAND	297	326	1	390	424	-	9	5	3
Maine	15	9	1	30	34	-	-	-	-
N H	10	7	-	10	15	-	-	-	-
Vt	6	3	-	12	4	-	-	-	-
Mass	158	169	-	195	255	-	7	2	-
R I	16	11	-	27	35	-	-	2	1
Conn	92	127	-	116	81	-	2	1	2
MID ATLANTIC	2,186	2,056	-	2,563	2,310	1	14	13	378
Upstate N Y	99	144	-	380	392	-	2	5	47
N Y City	1,253	1,280	-	1,335	1,145	-	6	4	-
N J	408	404	-	456	317	1	5	1	12
Pa	426	228	-	392	456	-	1	3	319
E N CENTRAL	626	670	1	1,517	1,543	-	13	48	73
Ohio	83	88	-	261	284	-	2	46	5
Ind	69	63	-	163	193	-	2	-	12
Ill	329	340	-	665	672	-	2	1	23
Mich	111	140	1	354	301	-	5	1	16
Wis	34	39	-	74	93	-	2	-	17
W N CENTRAL	138	135	2	367	328	21	6	27	514
Minn	24	28	-	93	63	-	1	1	60
Iowa	6	15	2	31	42	1	-	1	117
Mo	76	66	-	182	154	17	5	12	57
N Dak	2	2	-	6	6	-	-	1	116
S Dak	2	4	-	16	18	2	-	5	101
Nebr	11	7	-	7	13	1	-	3	22
Kans	17	13	-	32	32	-	-	4	41
S ATLANTIC	4,340	4,564	-	2,443	2,547	8	20	195	739
Del	31	23	-	27	27	-	-	1	-
Md	284	241	-	171	236	2	5	21	374
D C	182	214	-	81	101	-	2	-	-
Va	221	177	-	206	222	2	5	25	111
W Va	14	10	-	69	66	-	2	7	18
N C	307	400	-	338	313	1	3	70	5
S C	403	473	-	320	324	-	-	52	36
Ga	637	801	-	373	413	3	-	18	115
Fla	2,281	2,225	-	858	845	-	3	1	80
E S CENTRAL	1,025	1,228	-	1,107	1,118	6	1	54	211
Ky	47	36	-	262	246	2	-	11	57
Tenn	369	366	-	317	325	3	-	23	97
Ala	327	406	-	347	347	1	-	12	56
Miss	282	420	-	181	200	-	1	8	1
W S CENTRAL	3,127	3,642	4	1,633	1,508	29	13	74	487
Ark	157	187	-	213	165	19	-	3	111
La	523	634	-	266	203	1	1	-	14
Okla	85	101	3	156	158	6	1	61	42
Tex	2,362	2,720	1	998	982	3	11	10	320
MOUNTAIN	354	429	1	292	330	3	8	7	453
Mont	6	3	-	16	46	-	1	4	158
Idaho	7	3	-	11	15	-	-	-	1
Wyo	-	6	-	-	5	-	-	1	209
Colo	87	102	1	22	41	-	1	2	4
N Mex	46	72	-	66	61	1	-	-	4
Ariz	150	217	-	140	134	-	3	-	72
Utah	10	5	-	20	6	1	2	-	1
Nev	48	21	-	17	22	1	1	-	4
PACIFIC	2,920	2,698	1	2,372	2,386	1	70	-	345
Wash	52	75	1	117	139	-	3	-	2
Oreg	65	54	-	83	82	-	-	-	-
Calif	2,777	2,524	-	2,018	1,983	-	63	-	335
Alaska	2	2	-	33	68	1	1	-	8
Hawaii	24	43	-	121	114	-	3	-	-
Guam	1	2	-	33	30	-	-	-	-
P R	535	486	-	173	206	-	4	-	28
V I	-	1	U	1	1	-	-	-	-
Pac Trust Terr	165	80	-	36	38	-	39	-	-
Amer Samoa	-	-	-	3	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending August 2, 1986 (31st Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	596	404	119	43	13	17	41
Boston, Mass	156	91	39	8	7	11	15
Bridgeport, Conn	37	26	7	3	-	1	4
Cambridge, Mass	25	18	6	1	-	-	1
Fall River, Mass	29	19	8	2	-	-	-
Hartford, Conn	63	38	16	6	1	2	5
Lowell, Mass	25	19	2	3	1	-	-
Lynn, Mass	17	10	5	2	-	-	3
New Bedford, Mass	27	24	2	1	-	-	-
New Haven, Conn	35	19	7	7	1	1	2
Providence, R.I	54	43	6	3	2	-	3
Somerville, Mass	4	3	1	-	-	-	-
Springfield, Mass	49	38	8	2	-	1	5
Waterbury, Conn	25	20	2	3	-	-	-
Worcester, Mass	50	36	10	2	1	1	3
MID ATLANTIC	2,625	1,726	509	227	68	96	123
Albany, N.Y	63	44	10	3	3	3	1
Allentown, Pa	22	15	7	-	-	-	1
Buffalo, N.Y	115	79	24	5	3	4	10
Camden, N.J	47	31	9	3	2	2	1
Elizabeth, N.J	27	23	2	1	-	1	1
Erie, Pa †	42	34	7	1	-	-	3
Jersey City, N.J	47	34	5	5	1	2	3
N.Y. City, N.Y	1,356	871	258	141	37	49	59
Newark, N.J	73	37	11	14	3	8	4
Paterson, N.J	24	9	9	3	2	1	-
Philadelphia, Pa §	351	240	79	24	3	5	17
Pittsburgh, Pa †	89	49	24	6	1	9	1
Reading, Pa	30	20	5	2	1	2	4
Rochester, N.Y	79	58	14	3	3	1	8
Schenectady, N.Y	44	34	6	3	1	-	5
Scranton, Pa †	30	22	6	1	-	1	1
Syracuse, N.Y	100	63	20	5	5	7	2
Trenton, N.J	35	27	5	3	-	-	-
Utica, N.Y	14	10	3	-	1	-	-
Yonkers, N.Y	37	25	5	4	2	1	2
E.N. CENTRAL	2,310	1,506	507	160	65	72	92
Akron, Ohio	50	36	7	5	1	1	-
Canton, Ohio	38	28	7	1	1	1	2
Chicago, Ill §	584	382	125	45	10	22	16
Cincinnati, Ohio	158	109	38	7	1	3	17
Cleveland, Ohio	163	107	44	7	2	3	1
Columbus, Ohio	134	77	28	14	10	5	1
Dayton, Ohio	122	80	29	10	1	2	4
Detroit, Mich	257	159	52	28	9	9	9
Evansville, Ind	50	40	9	-	-	1	1
Fort Wayne, Ind	49	32	10	3	3	1	5
Gary, Ind	17	9	6	1	1	-	-
Grand Rapids, Mich	62	39	19	2	2	-	7
Indianapolis, Ind	153	90	38	11	6	8	1
Madison, Wis	35	15	11	3	3	3	3
Milwaukee, Wis	156	119	26	6	2	3	5
Peoria, Ill	41	32	7	1	-	1	3
Rockford, Ill	39	22	8	3	5	1	2
South Bend, Ind	39	26	7	2	3	1	5
Toledo, Ohio	112	75	24	7	2	4	9
Youngstown, Ohio	71	49	12	4	3	3	1
W.N. CENTRAL	717	454	153	51	30	29	38
Des Moines, Iowa	67	53	10	3	1	-	3
Duluth, Minn	25	16	6	1	-	2	-
Kansas City, Kans	49	27	16	2	3	1	2
Kansas City, Mo	130	71	34	13	4	8	7
Lincoln, Nebr	28	19	4	3	2	-	4
Minneapolis, Minn	65	43	13	3	5	1	-
Omaha, Nebr	67	37	13	7	5	5	3
St. Louis, Mo	168	111	30	14	5	8	10
St. Paul, Minn	56	37	16	1	1	1	-
Wichita, Kans	62	40	11	4	4	3	9
S. ATLANTIC	1,264	766	253	137	44	62	41
Atlanta, Ga	173	90	40	28	4	11	1
Baltimore, Md	257	158	55	27	7	10	7
Charlotte, N.C	70	43	15	3	4	4	5
Jacksonville, Fla	100	73	16	5	5	1	2
Miami, Fla	82	45	19	8	4	6	2
Norfolk, Va	78	40	15	9	4	10	4
Richmond, Va	71	35	19	10	4	3	5
Savannah, Ga	48	36	4	5	2	1	3
St. Petersburg, Fla	89	71	10	4	-	4	2
Tampa, Fla	75	58	10	2	2	2	6
Washington, D.C	198	102	42	36	8	10	4
Wilmington, Del	23	15	8	-	-	-	-
E.S. CENTRAL	728	473	147	58	19	31	32
Birmingham, Ala	112	71	17	12	5	7	2
Chattanooga, Tenn	60	44	11	3	2	-	6
Knoxville, Tenn	76	46	13	9	2	6	6
Louisville, Ky	98	71	20	2	1	4	8
Memphis, Tenn	147	89	41	14	2	1	2
Mobile, Ala	65	39	15	5	1	5	2
Montgomery, Ala	38	27	7	-	1	3	1
Nashville, Tenn	132	86	23	13	5	5	5
W.S. CENTRAL	1,231	690	294	123	54	70	56
Austin, Tex	55	38	7	5	2	3	4
Baton Rouge, La	44	30	9	3	1	1	2
Corpus Christi, Tex	39	25	6	5	2	1	1
Dallas, Tex	205	104	54	25	10	12	6
El Paso, Tex	69	34	20	5	7	3	3
Fort Worth, Tex	80	42	21	7	5	5	2
Houston, Tex	304	153	85	44	13	9	12
Little Rock, Ark	66	37	16	3	4	6	6
New Orleans, La	124	69	26	10	1	18	-
San Antonio, Tex	149	92	34	11	6	6	10
Shreveport, La	31	21	5	1	-	4	6
Tulsa, Okla	65	45	11	4	3	2	4
MOUNTAIN	629	406	128	51	21	22	30
Albuquerque, N.Mex	75	50	13	5	3	3	3
Colo. Springs, Colo	38	17	14	5	1	1	4
Denver, Colo	143	92	28	9	4	10	6
Las Vegas, Nev	73	48	16	4	4	1	4
Ogden, Utah	23	16	2	3	1	1	2
Phoenix, Ariz	118	78	24	13	2	1	3
Pueblo, Colo	23	14	7	1	1	-	3
Salt Lake City, Utah	36	24	4	4	2	2	-
Tucson, Ariz	100	67	20	7	3	3	5
PACIFIC	1,805	1,149	356	175	58	57	92
Berkeley, Calif	19	10	3	3	2	1	4
Fresno, Calif	85	55	18	6	3	3	8
Glendale, Calif	28	19	8	-	-	1	1
Honolulu, Hawaii	78	50	19	5	4	-	7
Long Beach, Calif	68	48	13	5	-	2	5
Los Angeles, Calif	503	299	105	67	16	6	10
Oakland, Calif	61	41	14	5	1	-	1
Pasadena, Calif §	25	22	2	1	-	-	-
Portland, Oreg §	104	73	19	8	3	1	3
Sacramento, Calif	159	94	33	18	8	6	17
San Diego, Calif	147	101	18	10	8	10	14
San Francisco, Calif	168	101	35	24	1	7	-
San Jose, Calif	127	73	30	9	4	11	10
Seattle, Wash	140	99	22	10	2	7	7
Spokane, Wash	51	34	12	2	1	2	4
Tacoma, Wash	42	30	5	2	5	-	1
TOTAL	11,905††	7,573	2,466	1,025	372	456	545

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* Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

** Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages

§ Data not available. Figures are estimates based on average of past 4 weeks

Lung Cancer – Continued

followed in 1966 with congressionally mandated warning labels on cigarette packages and in advertising. Smoking prevalence among adult males in the United States decreased from 52% before the Surgeon General's report to about 35% in 1983. Such considerable decreases in smoking prevalence have not been observed among females; the smoking prevalence among women was 34% in 1965 and 29% in 1983 (*4,5*). Although smoking prevalence rates for women have never been as high as those for men, their rate of decline is about half that for men. Unfortunately, the percentage of smokers who smoke 25 or more cigarettes per day was 13% in 1965 and 25% in 1980, suggesting that the bulk of smoking cessation may have been among lighter smokers. During the 1960s, smokers began to use filter-tipped cigarettes and, in the 1970s, low-tar and -nicotine cigarettes (*6*). Both the decrease in prevalence and the changing types of cigarettes smoked have been suggested as major reasons for declines in age-specific and age-adjusted lung cancer rates.

Reports from the Surgeon General's Office on the health consequences of smoking have continued for almost 2 decades and have led to formation of policy on smoking reduction as a major element of the health promotion and disease prevention objectives for 1990 (*7*). Recently, the National Cancer Institute defined cancer prevention and control objectives for the year 2000, which include the following risk-factor reduction objectives: (1) the proportion of adults who smoke should be reduced to 15% or less; and (2) the proportion of children and youth aged 12-18 years who smoke should be reduced to 3% or less. The attainment of these goals will result in more than a 40% reduction in deaths due to lung cancer than would be expected if the current rates of smoking prevalence continue into the next century.

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Standardization and Evaluation of the Clinical Usefulness of Mycobacterial Skin Test Antigens

CDC, assisted by selected physicians and health departments throughout the United States, recently completed a study to determine biologically equipotent doses for skin test antigens prepared from several species of nontuberculous mycobacteria (NTM). This standardization study was planned as a first step in evaluating the clinical and epidemiologic usefulness of the NTM antigens. In the past, these antigens were formulated on a protein-weight basis equivalent to intermediate strength (5 TU) tuberculin-purified protein derivative (PPD) (0.1 μg/dose) and contained no stabilizer to reduce losses from adsorption to the container.

Mycobacterial Skin Test – Continued

To standardize the individual NTM antigen, consenting patients with compatible signs and symptoms and bacteriologically confirmed NTM disease received four skin tests of differing strengths of the antigen prepared from the homologous species of *Mycobacterium* and stabilized by Tween-80®. The skin tests were administered and measured by one experienced nurse, and the amount of induration was measured at 48 hours. Dose-response curves for each antigen were used to estimate the concentration bioequivalent to 5 TU of PPD-S (international standard tuberculin), i.e., the dose expected to produce a mean reaction of 16.0 mm induration, which is the mean reaction to 5 TU of PPD-S observed among a series of tuberculosis cases. From these data, standardized doses of PPD-B (*M. avium* complex), PPD-Y (*M. kansasii*), PPD-G (*M. scrofulaceum*), and PPD-platy (*M. marinum*) have now been prepared (Table 1).

Reported by J Shinnick, Bucks County Health Dept, Pennsylvania; LB Reichman, MD, UMDNJ, New Jersey Medical School, Newark; E Wolinsky, MD, Cleveland Metropolitan General Hospital, Cleveland, Ohio; P Smith, MD, SUNY Health Science Center at Brooklyn, R Dattwyler, MD, SUNY Health Science Center at Stoneybrook, New York; J Landis, MD, Bay State Medical Center, Springfield, Massachusetts; R Ratard, MD, New Orleans, Louisiana; DP Schlueter, MD, Medical College of Wisconsin, Milwaukee; RJ Wallace, Jr, MD, University of Texas Health Science Center, Tyler, C Ahn, MD, Dallas; CR Horsburgh, Jr, MD, University of Colorado Health Science Center, Denver; M Marks, MD, University of Oklahoma Health Science Center, Oklahoma City; R Hayes, MD, New Mexico Health Svcs Div, Santa Fe; Respiratory Disease Br, Div of Bacterial Diseases, Center for Infectious Diseases, Div of Tuberculosis Control, Center for Prevention Svcs, CDC.

Editorial Note: A battery of standardized skin test antigens, including tuberculin and those prepared from NTM, has several potential uses: distinguishing mycobacterial from nonmycobacterial diseases; distinguishing *M. tuberculosis* from NTM infections and diseases; and distinguishing among specific NTM infections. This diagnostic potential could not be adequately assessed using the nonstandardized and nonstabilized preparations.

CDC is now beginning two studies to determine the clinical usefulness of the standardized NTM antigens. Adults with suspected mycobacterial pulmonary disease and children with chronic cervical lymphadenitis will be offered a battery of four standardized skin test antigens: PPD-B, PPD-Y, PPD-G, and PPD-tuberculin. The test results will be compared to the mycobacterial species subsequently isolated from the patients to determine the operational characteristics of these tests, e.g., sensitivity, specificity, and predictive value. Physicians interested in participating in these studies should contact CDC's Tuberculosis Clinical Research Branch at (404) 329-2530.

TABLE 1. Doses of nontuberculous mycobacterial antigens biologically equivalent to 5-TU PPD-S tuberculin in patients with disease due to homologous species

Antigen	Homologous mycobacterium	Persons tested	Dose bioequivalent to 5-TU PPD-S (μg/0.1 ml)
PPD-B	*M. avium* complex	47	0.9468
PPD-Y	*M. kansasii*	46	3.0334
PPD-G	*M. scrofulaceum*	9	0.2603
PPD-platy	*M. marinum*	19	0.2185

Enterovirus Surveillance — United States, 1986

Reports of 54 nonpolio enterovirus (NPEV) isolates identified in March through May 1986 were received from state virology laboratories. Echovirus 4 was isolated most frequently (18/54), followed by coxsackievirus B5 (12 isolates), coxsackievirus B3 (six), coxsackievirus B2 (five), and coxsackievirus B4, echovirus 7, and echovirus 11 (three each). In 1985, the six most common NPEV isolates were echovirus 11 (217 of the 1,817 isolates), echovirus 21 (215), echovirus 6 and 7 (187 each), coxsackievirus B2 (134), and coxsackievirus B4 (113). These latter six NPEV types represented 58% of the total enterovirus isolates reported for 1985.

Reported by state virology laboratory directors; Respiratory and Enterovirus Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: A retrospective study of CDC's NPEV surveillance data shows that isolates from March through May predict the types likely to be isolated in July through December, which includes the peak enterovirus season (*1*). The six most common isolates in March through May accounted for an average of 59% of the isolates detected in July through December each year. In 1985, they accounted for 57% of the isolates in July through December. The reports of early 1986 isolates suggest that echoviruses 4, 7, and 11 and coxsackieviruses B2, B3, B4, and B5 are likely to be common NPEV isolates this year. All of the top six isolates reported so far this year, and five of the top six isolates reported in 1985, were in the top 15 most frequent isolates for 1970-1983 (*1*).

Reference

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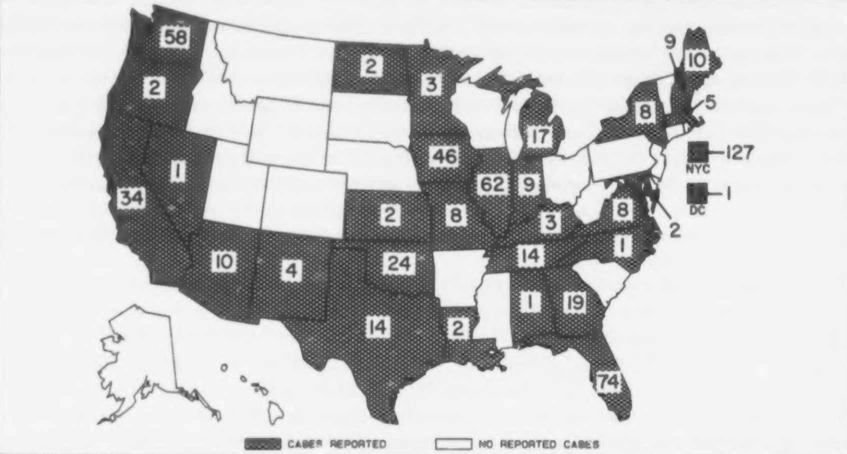
FIGURE I. Reported measles cases — United States, weeks 27-30, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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CENTERS FOR DISEASE CONTROL

MMWR

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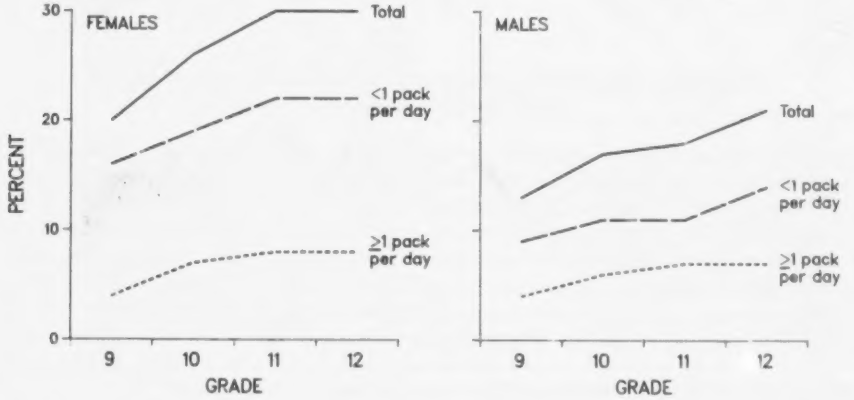
Perspectives in Disease Prevention and Health Promotion

Cigarette Smoking among Public High School Students — Rhode Island

From July 1983 through December 1984, as part of a health-risk survey, information was obtained from 11,657 Rhode Island public high school students about their cigarette smoking practices. Overall, 22.3% of these students reported that they smoked cigarettes. Cigarette smoking increased by grade and was more common among females (26.5%) than among males (17.5%). The difference between females and males was due primarily to a larger proportion of females who reported smoking less than one pack per day (Figure 1).

During this period, 19 (63.3%) of the 30 public high schools in Rhode Island took part in this health-risk assessment program. The ongoing program provides both prevalence estimates of cigarette smoking and other health-related behaviors and counseling to students with unhealthy behaviors. More than 99% of the students attending the 19 schools participated in the program. The 11,657 participants constituted 26.3% of all public high school students in Rhode Island. The participating students were demographically similar to all Rhode Island public high school students but were somewhat more likely to be female, other than white, and from low-income communities (Table 1).

FIGURE 1. Prevalence of cigarette smoking among public high school students, by grade and sex — Rhode Island, 1983-1984



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES / PUBLIC HEALTH SERVICE

HE 20.7009:

Cigarette Smoking – Continued

Reported by HD Scott, MD, L Marciano, MEd, R Cabral, PhD, Office of Health Promotion, Rhode Island Dept of Health; Behavioral Epidemiology and Evaluation Br, Div of Health Education, Center for Health Promotion and Education, CDC.

Editorial Note: Cigarette smoking is presently the largest single cause of preventable morbidity and mortality in the United States (*1*). The prevalence of smoking has slowly declined over the past 2 decades, and over 30 million Americans have quit smoking since the first Surgeon General's report on smoking and health was released in 1964 (*2*). It has been estimated that, from 1964 to 1978, more than 200,000 premature deaths were prevented because some people stopped smoking, and others did not start (*3*). Nevertheless, approximately one-third of the U.S. adult population still smokes cigarettes, and there is some evidence that the prevalence of smoking is actually increasing among young white females (*4*). In addition, it has been estimated that at least 12 million people used smokeless tobacco (snuff and chewing tobacco) in the United States in 1985 (*5*). Use is increasing, especially among male adolescents and young male adults. Therefore, continued and even greater efforts to prevent the initiation of any tobacco use and to assist in the cessation of tobacco use are needed.

Smoking is an addictive behavior. Experimentation and adoption of the habit usually occur during adolescence; therefore, prevention programs frequently focus on this group. Rhode Island's data-collection system represents one approach to collecting data on smoking habits

TABLE 1. Demographic characteristics of adolescents completing health-risk assessments and of all students enrolled in public high schools — Rhode Island, July 1983-December 1984

Characteristic	Percentage of health-risk assessment respondents (n = 11,657)	Percentage of all Rhode Island public high school students* (n = 44,404)
Sex		
Male	46.4	49.5
Female	53.6	50.5
Grade		
9th	22.1	26.6
10th	26.3	25.7
11th	23.9	24.4
12th	27.8	23.4
Race/ethnicity		
White	83.2	91.3
Black	5.5	4.4
Hispanic	4.0	2.5
Asian	2.8	1.5
Native American	1.2	0.3
Other	3.4	–
Income level†		
High	21.5	23.6
Medium	37.3	42.0
Low	41.2	34.4

*Data from the annual school census of the Rhode Island Department of Education, 1984.

†Income level based on median income for the community in which the high school is located, using 1980 U.S. Census data.

Cigarette Smoking — Continued

of teenagers. The data are self-reported and may underestimate the true prevalence of cigarette smoking. Although not a state-wide random sample, the demographic characteristics of the participants are similar to those of all public high school students, and the data probably are a good representation for the state-wide public school population.

The National Institute on Drug Abuse (NIDA) collects data each year on a national cross-section of public and private high schools (*6*). Among high school seniors in 1983, NIDA estimates a prevalence of daily cigarette smoking of 19% for males and 22% for females. This gender difference is less than that seen in Rhode Island. However, the categories of number of cigarettes smoked in the NIDA survey and the Rhode Island program are different, so direct comparison is not possible.

The Rhode Island data confirm that smoking among high school students is more common among young females than young males. Continued efforts to prevent the onset of smoking among young people are necessary. Because of the growing use of smokeless tobacco among children and adolescents (*5*), these efforts should also be directed toward preventing the use of smokeless tobacco products in this age group. The Rhode Island program is an example of one method to monitor the overall effect of these efforts.

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Deaths due to Chronic Obstructive Pulmonary Disease and Allied Conditions

In 1984, chronic obstructive pulmonary disease (COPD) and allied conditions were the eleventh leading cause of years of potential life lost before age 65 (YPLL) in the United States, accounting for 123,000 YPLL (see Table V, page 517). The category "COPD and allied conditions" is composed of a variety of diseases, including bronchitis, emphysema, asthma, bronchiectasis, extrinsic allergic alveolitis, and chronic airway obstruction not specifically labeled as one of the preceding conditions. Chronic airway obstruction was responsible for the most deaths and YPLL in 1983 (Table 2). Because the causes of death in this category are probably the same as in the bronchitis and emphysema category, for this report, those three categories are combined as COPD.

From 1979 through 1983, the last year for which age-, sex-, race-, and cause-specific mortality data are available, both YPLL and YPLL rates per 100,000 population for COPD did not vary appreciably (Figure 2). Rates for males were roughly twice those for females. White

Pulmonary Disease — Continued

males and males of all other races had similar rates, whereas the rate for white females consistently exceeded the rate for females of other races. In contrast, YPLL rates for asthma increased between 1979 and 1983 (Figure 3). Rates for black and other males and females were higher and increased more than the rates for whites throughout the 5-year period.

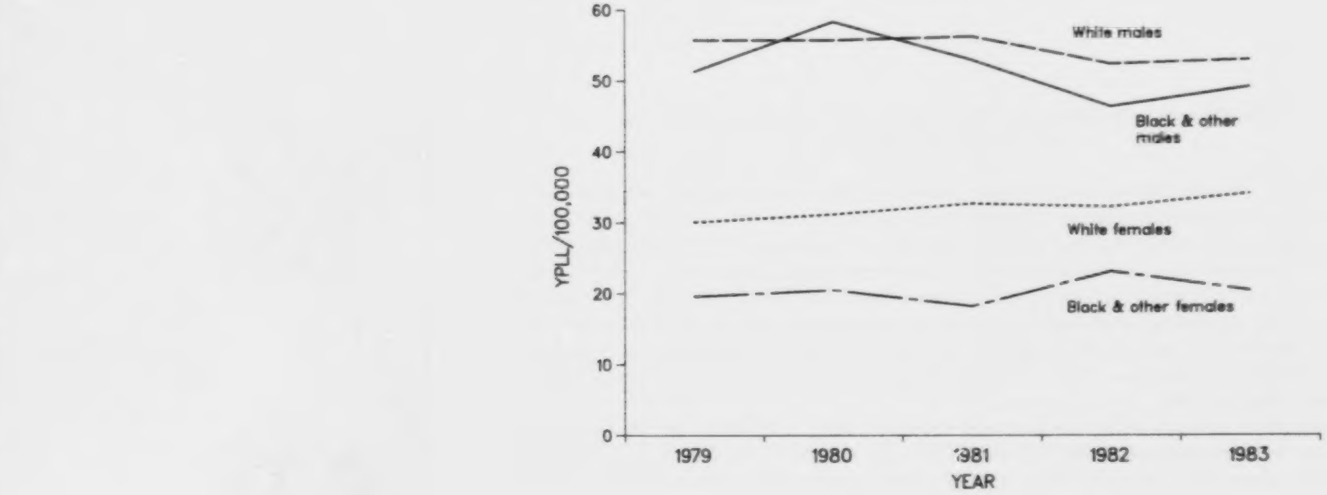
Reported by Behavioral Epidemiology and Evaluation Br, Div of Health Education, Center for Health Promotion and Education, CDC.

TABLE 2. Number of deaths and years of potential life lost before age 65 (YPLL) due to chronic obstructive pulmonary disease and allied conditions — United States, 1983

	Deaths before age 65		YPLL		
Condition (ICD code)*	**No.**	**(%)**	**No.**	**(%)**	**Rate†**
Bronchitis and emphysema (490-492.9)	3,494	(26.2)	30,686	(24.8)	14.8
Asthma (493)	1,742	(13.1)	34,320	(27.7)	16.6
Other chronic lung conditions (494-495.9)	184	(1.4)	2,586	(2.1)	1.2
Chronic airway obstruction (496)	7,900	(59.3)	56,368	(45.5)	27.2
Total	**13,320**	**(100.0)**	**123,960**	**(100.0)**	**59.9**

*International Classification of Diseases, Ninth Revision.
†Per 100,000 population.

FIGURE 2. Rate of years of potential life lost before age 65 (YPLL) due to chronic obstructive pulmonary disease — United States, 1979-1983



Pulmonary Disease – Continued

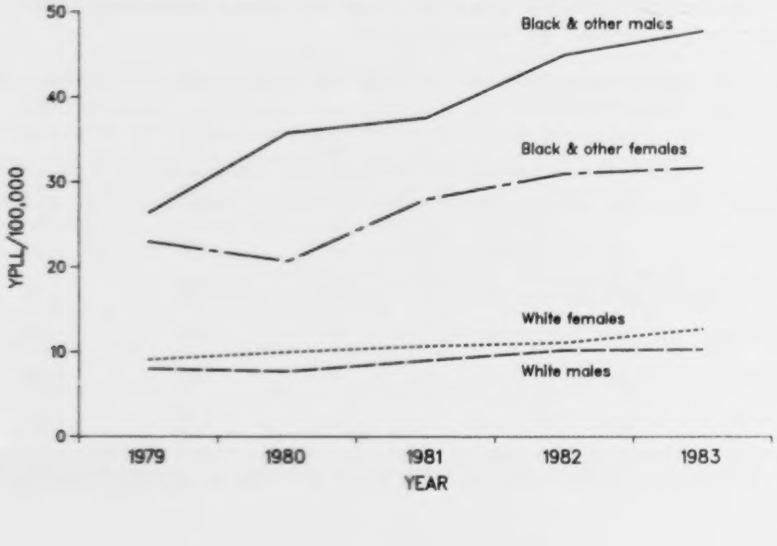
Editorial Note: COPD is an important health problem for Americans, causing an estimated 4.7 million hospital days per year and $6.5 billion in direct and indirect costs (*1*). Smoking accounts for 80%-90% of COPD mortality for both men and women. The total death rate and YPLL rate are higher for men than for women and higher for whites than for other races. These findings probably reflect previous differences in smoking patterns among these groups. The risk of COPD increases with the dose of exposure, i.e., number of cigarettes smoked per day, and the duration of smoking. Within a few years after beginning to smoke, smokers have a higher prevalence of abnormal function of the small airways than nonsmokers, and the severity of dysfunction increases with years of smoking. Smoking cessation leads to a decreased risk of mortality; however, even 20 years after cessation, the risk of death from COPD for former smokers is not as low as for persons who have never smoked (*2*).

The Surgeon General's report in 1979 indicated that inhaled tobacco smoke can trigger or aggravate asthmatic symptoms in persons with asthma (*3*). This offers support for the cessation of smoking and the avoidance of passive smoke exposure in asthmatic individuals.

Different mortality measures can emphasize different public health perspectives. COPD is primarily a disease of older persons, while asthma is more likely to affect younger persons: in 1983, 18.9% of asthma-related deaths occurred among persons under 45 years of age, in contrast to only 0.7% of COPD deaths. Total deaths and crude death rates reflect the total impact for a specific cause of death for all age groups. YPLL and YPLL rates, in contrast, may emphasize deaths among younger persons, making the contribution of asthma to mortality more apparent. For example, a person who dies at age 30 from asthma contributes 35 years to the total YPLL, whereas a person who dies at age 60 from COPD contributes 5 years to the total YPLL. The death rate for persons of all ages for COPD is 18 times greater than that for asthma, whereas the YPLL rate for COPD is 2.5 times greater.

YPLL rates for asthma appear to have increased over the 5-year period, especially among black and other males. This suggests the need to further examine factors such as: (1) im-

FIGURE 3. Rate of years of potential life lost before age 65 (YPLL) due to asthma — United States, 1979-1983



Pulmonary Disease – Continued

proved diagnosis of asthma over time; (2) an actual increase in the asthma mortality rate among younger persons; or (3) changes in the effectiveness of treatment for life-threatening asthma attacks.

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Current Trends

Antigenic Variation of Recent Influenza A(H1N1) Viruses

Antigenic analysis of recent influenza A(H1N1) viruses, including those reported from several countries in Southeast Asia (*1*), has detected antigenic drift from the previously prevalent strain related to A/Chile/1/83(H1N1). The antigenic variation has been seen both in reciprocal hemagglutination-inhibition tests using animal antisera and in comparisons of antibody levels against the newer variants in persons immunized with vaccine containing A/Chile/1/83 antigen.

Animal antiserum to A/Chile/1/83 is less effective in inhibiting the newer A(H1N1) variants than in inhibiting A/Chile/1/83-like viruses, although the degree of reactivity varies among isolates of the newer A(H1N1) variants (Table 3). In contrast, antisera prepared against representative new isolates (e.g., A/Singapore/6/86, A/Taiwan/1/86) react well with all other recent isolates but extremely poorly with A/Chile/1/83. In tests with animal antisera, the new variants also differed from other variants that have cocirculated with A/Chile/1/83 since 1983-1984 (e.g., A/Victoria/7/83, A/Dunedin/27/83).

TABLE 3. Hemagglutination-inhibition reactions* of influenza A(H1N1) viruses with postinfection ferret antisera

Antigen	Sera				
	A/Chile/1/83	A/Dunedin/27/83	A/Victoria/7/83	A/Singapore/6/86	A/Taiwan/1/86
A/Chile/1/83	**160**	20	20	< 10	< 10
A/Dunedin/27/83	40	**640**	20	10	< 10
A/Victoria/7/83	320	80	**1,280**	160	40
A/Singapore/6/86	80	40	40	**640**	1,280
A/Taiwan/1/86	40	40	20	320	**2,560**
A/Beijing/1/86	20	40	20	640	1,280

*Titers are the reciprocal of antiserum dilutions; homologous titers appear in bold type. When comparing reactions of sera with different antigens, fourfold or greater differences are considered experimentally significant.

Influenza Viruses – Continued

Studies of antibody response in recipients of last year's influenza vaccine containing A/Chile/1/83 antigen demonstrate the difference of the new variants (Table 4). Approximately 80% of adult vaccinees developed titers to A/Chile/1/83 of 160 or higher and had a postvaccination geometric mean titer (GMT) of 320. In contrast, only 15%-30% of the vaccinees developed the same titers to the new variants, and the postvaccination GMT was about sixfold lower. However, since postvaccination titers of 40 or greater have been associated with reduced influenza infection and illness, it is possible that the A/Chile/1/83 antigen in the 1986-1987 trivalent vaccine will provide at least partial protection against the new variants.

Through July 1986, influenza A(H1N1) variants had been detected among virus isolates from Hong Kong, Malaysia, and New Zealand; from an imported case in England believed to have originated in India; and among viruses from a few outbreaks and sporadic cases of influenza A(H1N1) that occurred in Japan last winter. The presence of an A(H1N1) variant has also been reported from the Soviet Union, where last winter's epidemic was primarily caused by influenza B and influenza A(H3N2) viruses. Recently, influenza A viruses, some confirmed as A(H1N1) strains, have also been reported in Australia, Thailand, American Samoa, and Palau, Micronesia. Influenza outbreaks in Palau and elsewhere in the U.S. Pacific Trust Territories are presently being investigated.

Reported by National Influenza Centers in collaboration with the World Health Organization, Geneva; WHO Collaborating Centre for Influenza, Influenza Br, Center for Infectious Diseases, CDC.

Editorial Note: After the World Health Organization (WHO) Collaborating Centres for Influenza detected variants of influenza A(H1N1) viruses among isolates submitted for reference analysis from influenza outbreaks in the People's Republic of China, Malaysia, Singapore, and Taiwan, data were reported indicating that related strains had been detected at the end of an influenza A(H3N2) epidemic in Japan last winter. The most recent reports suggest that the variant may have been introduced into other countries widely separated in the Pacific Basin from Southeast Asia (e.g., Australia, New Zealand, and several islands in the U.S. Pacific Trust Territories) and possibly India. Reports of outbreaks in Southeast Asia indicate primarily children and young adults have been affected, suggesting that the general epidemiologic characteristics of the new variant are similar to those of other type A(H1N1) variants occurring since 1977.

Based on the available reports, WHO has suggested that national health authorities consider the addition of the new type A(H1N1) virus to other strains already recommended for incorporation in 1986-1987 influenza vaccines, either as an extra component in current trivalent vaccines or as a monovalent vaccine (*2*). In the United States, the vaccine production

TABLE 4. Hemagglutination-inhibition serum antibody response to influenza vaccine in immunized adults — United States, fall 1985*

	Prevaccine sera				Postvaccine sera			
	Cumulative % with titer				Cumulative % with titer			
Antigen A(H1N1)	**≥10**	**≥40**	**≥160**	**GMT**	**≥10**	**≥40**	**≥160**	**GMT**
A/Chile/1/83	82	58	15	33	100	96	80	320
A/Singapore/6/86	87	20	2	18	98	80	15	50
A/Taiwan/1/86	49	15	4	10	93	75	29	56

*Fifty-five adults received trivalent split vaccine containing 15 μg each of A/Phillippines/2/82, A/Chile/1/83, and B/USSR/100/83.

Influenza Viruses – Continued

schedule permits manufacture only of a supplemental monovalent vaccine with a new type A(H1N1) virus. After consideration of available data, the U.S. Public Health Service is recommending production and use of such a vaccine to maximize protection against the new variant, particularly for high-risk children and young adults who appear to be most susceptible to illness caused by current type A(H1N1) viruses (*3*). If outbreaks of influenza-like illnesses occur in the United States early this fall, prompt laboratory diagnosis will be necessary to establish whether they are due to influenza A viruses and to guide appropriate use of the available antiviral agent, amantadine hydrochloride (*4*).

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TABLE I. Summary—cases specified notifiable diseases, United States

Disease	32nd Week Ending			Cumulative, 32nd Week Ending		
	Aug. 9, 1986	Aug. 10, 1985	Median 1981-1985	Aug. 9, 1986	Aug. 10, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	371	155	N	7,631	4,632	N
Aseptic meningitis	354	349	366	4,188	3,780	3,873
Encephalitis: Primary (arthropod-borne & unspec.)	28	28	35	543	617	644
Post-infectious	3	-	2	67	86	62
Gonorrhea: Civilian	18,527	16,871	19,424	527,166	530,774	543,763
Military	259	285	575	10,145	12,785	14,891
Hepatitis: Type A	385	393	426	13,244	13,228	13,228
Type B	463	444	489	15,754	15,430	14,397
Non A, Non B	65	58	N	2,168	2,511	N
Unspecified	91	110	126	2,877	3,495	4,383
Legionellosis	21	21	N	390	437	N
Leprosy	-	23	3	168	241	155
Malaria	21	18	23	591	595	595
Measles: Total*	83	75	29	4,847	2,236	2,172
Indigenous	81	54	N	4,615	1,878	N
Imported	2	21	N	232	358	N
Meningococcal infections: Total	31	16	35	1,705	1,612	1,916
Civilian	31	16	35	1,703	1,606	1,912
Military	-	-	-	2	6	9
Mumps	124	14	25	3,153	2,089	2,335
Pertussis	156	85	61	1,746	1,327	1,254
Rubella (German measles)	8	19	10	368	466	738
Syphilis (Primary & Secondary): Civilian	564	518	662	15,877	16,266	18,411
Military	2	-	4	107	113	232
Toxic Shock syndrome	2	11	N	214	245	N
Tuberculosis	546	325	448	13,241	12,819	14,116
Tularemia	7	6	7	76	107	141
Typhoid fever	16	5	9	171	205	229
Typhus fever, tick-borne (RMSF)	29	24	34	450	398	688
Rabies, animal	85	113	136	3,338	3,257	3,898

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-		
Botulism: Foodborne (Tex. 1)	6	Leptospirosis (Hawaii 1)	23
Infant (Calif. 1)	29	Plague	4
Other	1	Poliomyelitis, Paralytic	-
Brucellosis (Colo. 1)	41	Psittacosis (Ohio 1, Ga. 1, Fla. 1, Calif. 2)	64
Cholera	-	Rabies, human	-
Congenital rubella syndrome	2	Tetanus (Upstate N. Y. 1, Ohio 1)	36
Congenital syphilis, ages < 1 year	107	Trichinosis	20
Diphtheria	-	Typhus fever, flea-borne (endemic, murine) (Tex. 3)	32

*One of the 83 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending August 9, 1986, and August 10, 1985 (32nd Week)

Reporting Area	AIDS	Aseptic Menin-gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel-losis	Leprosy
			Primary	Post-in-fectious			A	B	NA,NB	Unspeci-fied		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	7,631	354	543	67	527,166	530,774	385	463	65	91	21	168
NEW ENGLAND	347	12	15	3	12,657	14,456	9	26	2	2	1	6
Maine	12	1	-	-	552	664	-	4	1	-	-	-
N H	8	-	2	-	326	340	-	1	-	-	-	-
Vt	3	1	2	2	162	187	-	1	1	-	1	-
Mass	187	4	3	-	5,205	5,627	5	11	-	2	-	6
R I	19	-	-	-	1,034	1,122	2	1	-	-	-	-
Conn	118	6	8	1	5,378	6,516	2	8	-	-	-	-
MID ATLANTIC	2,951	42	67	6	90,311	77,165	12	30	1	14	-	11
Upstate N Y	289	20	26	4	10,451	10,152	4	15	-	-	-	1
N Y City	1,983	11	14	-	52,938	38,742	-	1	1	14	-	9
N J	477	11	10	-	11,641	11,891	8	14	-	-	-	-
Pa	202	-	17	2	15,281	16,380	-	-	-	-	-	1
E N CENTRAL	477	103	143	9	68,358	70,965	11	34	5	6	2	4
Ohio	100	31	42	2	17,083	17,422	5	15	2	2	2	-
Ind	44	14	34	3	7,587	7,379	-	3	-	1	-	-
Ill	237	35	30	3	19,357	19,637	1	8	2	2	-	3
Mich	78	23	31	1	21,635	19,910	5	8	1	1	-	1
Wis	18	-	6	-	2,696	6,617	-	-	-	-	-	-
W N CENTRAL	144	5	21	8	22,975	24,474	9	11	1	1	3	2
Minn	56	1	11	-	3,231	3,573	3	2	-	1	-	1
Iowa	10	1	7	-	2,299	2,676	-	1	1	-	-	-
Mo	49	1	-	-	11,502	11,680	4	6	-	-	2	-
N Dak	2	-	-	-	193	162	-	-	-	-	-	-
S Dak	1	-	2	-	468	457	-	-	-	-	1	-
Nebr	6	-	-	1	1,793	2,212	1	-	-	-	-	-
Kans	20	2	1	7	3,489	3,714	1	2	-	-	-	1
S ATLANTIC	941	54	69	23	136,482	137,285	46	96	15	15	11	1
Del	16	-	4	-	2,170	2,462	5	2	1	-	-	-
Md	123	9	22	1	15,867	17,473	2	20	4	2	8	-
D C	132	4	-	1	10,102	9,161	-	-	-	1	1	-
Va	97	8	21	1	11,192	11,447	2	6	1	1	-	1
W Va	5	1	10	-	1,380	1,533	1	-	1	-	-	-
N C	42	7	10	1	21,202	20,999	1	11	2	1	-	-
S C	21	1	-	-	11,974	13,389	-	5	-	-	1	-
Ga	170	8	-	1	23,312	27,647	2	23	-	2	1	-
Fla	335	16	2	18	39,293	33,174	33	29	6	8	-	-
E S CENTRAL	100	44	39	3	43,013	44,827	11	52	3	5	-	1
Ky	19	20	19	1	4,790	5,052	3	6	1	1	-	-
Tenn	53	10	3	1	16,596	17,390	3	26	1	3	-	-
Ala	18	13	16	1	12,315	13,749	3	16	1	1	-	1
Miss	10	1	1	-	9,312	8,636	2	4	-	-	-	-
W S CENTRAL	480	32	71	6	63,386	66,809	73	35	5	17	-	12
Ark	21	1	-	2	5,913	6,508	5	-	-	-	-	-
La	100	-	3	-	11,346	13,241	-	-	-	-	-	1
Okla	27	1	14	-	7,128	7,186	9	8	1	-	-	-
Tex	332	30	54	4	38,999	39,874	59	27	4	17	-	11
MOUNTAIN	198	10	19	1	15,684	16,655	67	42	14	8	3	11
Mont	4	-	-	1	446	445	1	1	-	-	-	-
Idaho	2	-	-	-	519	518	9	6	-	-	-	-
Wyo	4	-	2	-	352	393	-	-	-	-	-	-
Colo	96	2	3	-	4,068	4,953	1	-	-	2	1	3
N Mex	11	2	2	-	1,564	1,881	5	10	1	-	-	-
Ariz	49	6	8	-	5,082	5,000	47	19	10	6	1	5
Utah	10	-	3	-	663	721	-	-	-	-	1	1
Nev	22	-	1	-	2,990	2,744	4	6	3	-	-	2
PACIFIC	1,993	52	99	8	74,300	78,138	147	137	19	23	1	120
Wash	93	4	10	-	5,565	5,707	17	11	3	2	-	14
Oreg	36	-	-	-	3,024	3,814	29	14	-	1	-	-
Calif	1,825	39	87	8	63,148	65,670	100	111	15	20	1	84
Alaska	9	2	2	-	1,705	1,831	-	-	-	-	-	-
Hawaii	30	7	-	-	858	1,116	1	1	1	-	-	22
Guam	-	-	-	-	109	125	-	-	-	-	-	1
P R	75	-	4	-	1,401	2,156	2	4	-	3	-	7
V I	3	U	-	-	139	312	U	U	U	U	U	-
Pac Trust Terr	-	-	-	-	264	574	3	-	-	3	-	31
Amer Samoa	-	-	-	-	30	-	2	-	-	-	-	1

N Not notifiable U Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 9, 1986, and August 10, 1985 (32nd Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	591	81	4,615	2	232	2,236	1,705	124	3,153	156	1,746	1,327	8	368	466
NEW ENGLAND	30	-	74	-	6	123	120	-	49	-	97	73	-	9	12
Maine	1	-	10	-	-	1	23	-	-	-	2	5	-	-	-
N H	2	-	37	-	-	-	6	-	13	-	46	29	-	1	2
Vt	1	-	-	-	-	-	15	-	2	-	3	3	-	1	-
Mass	15	-	24	-	5	115	26	-	6	-	27	17	-	4	6
R I	4	-	2	-	-	-	15	-	9	-	3	12	-	2	-
Conn	7	-	1	-	1	7	35	-	19	-	16	7	-	1	4
MID ATLANTIC	67	48	1,468	-	21	195	271	2	129	3	123	89	1	31	196
Upstate N Y	24	-	43	-	19	82	91	1	52	1	80	52	1	23	17
N Y City	19	48	527	-	2	59	57	-	5	-	3	9	-	5	155
N J	7	-	876	-	-	27	29	1	33	1	10	3	-	3	11
Pa	17	-	22	-	-	27	94	-	39	1	30	25	-	-	13
E N CENTRAL	38	11	868	-	16	506	229	110	2,150	5	224	242	5	32	26
Ohio	10	-	-	-	10	54	91	-	99	5	92	25	1	1	-
Ind	2	-	11	-	-	56	18	-	31	-	22	11	-	-	1
Ill	14	9	573	-	3	285	64	102	1,587	-	27	28	3	22	10
Mich	11	2	50	-	-	52	52	7	245	-	23	29	1	7	14
Wis	1	-	234	-	3	59	4	1	188	-	60	149	-	2	1
W N CENTRAL	22	-	270	-	17	11	83	-	81	45	145	87	-	10	19
Minn	5	-	45	-	4	6	16	-	1	4	42	25	-	-	2
Iowa	1	-	81	-	1	-	11	-	21	-	11	5	-	1	1
Mo	10	-	25	-	6	2	28	-	15	4	12	20	-	1	7
N Dak	-	-	25	-	1	2	-	-	3	1	4	9	-	1	2
S Dak	-	-	-	-	-	-	4	-	1	1	14	1	-	-	-
Nebr	4	-	-	-	-	-	9	-	-	-	-	4	-	-	-
Kans	2	-	94	-	5	1	15	-	40	35	62	23	-	7	7
S ATLANTIC	73	3	501	1	53	249	319	3	148	18	560	256	-	10	48
Del	1	-	1	-	-	-	2	-	-	-	222	-	-	-	1
Md	12	-	20	-	9	73	44	2	15	-	137	115	-	-	6
D C	1	-	-	1[†]	2	7	4	-	-	-	-	1	-	-	-
Va	15	-	35	-	24	24	51	-	29	4	27	8	-	-	2
W Va	4	-	2	-	-	33	3	1	38	2	20	2	-	-	9
N C	4	-	2	-	1	9	55	-	14	5	38	14	-	-	-
S C	5	-	274	-	-	-	29	-	11	-	5	-	-	-	3
Ga	7	-	78	-	14	8	49	-	14	7	90	72	-	-	-
Fla	24	3	89	-	3	95	82	-	27	-	21	44	-	10	27
E S CENTRAL	14	-	56	1	8	4	96	-	23	6	33	17	-	2	2
Ky	4	-	-	1[§]	6	2	23	-	5	-	2	3	-	2	2
Tenn	-	-	54	-	1	1	35	-	15	5	12	5	-	-	-
Ala	6	-	-	-	1	-	27	-	2	1	19	6	-	-	-
Miss	4	-	2	-	-	1	11	-	1	-	-	3	-	-	-
W S CENTRAL	58	6	585	-	34	416	147	2	146	20	132	206	-	55	29
Ark	-	-	276	-	2	-	21	-	7	-	8	12	-	-	1
La	8	-	4	-	-	42	21	-	2	-	7	9	-	-	-
Okla	8	-	37	-	2	1	19	N	N	20	89	115	-	-	1
Tex	42	6	268	-	30	373	86	2	137	-	28	70	-	55	27
MOUNTAIN	23	7	295	-	26	490	84	3	201	17	175	102	-	20	4
Mont	-	-	-	-	8	137	8	-	5	-	7	5	-	2	-
Idaho	1	-	1	-	-	135	2	-	4	2	33	6	-	-	1
Wyo	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-
Colo	7	-	2	-	5	8	13	-	11	5	48	32	-	1	-
N Mex	2	1	32	-	7	5	6	N	N	-	16	10	-	-	2
Ariz	8	5	252	-	6	205	19	3	167	10	46	24	-	2	1
Utah	2	1	7	-	-	-	9	-	10	-	21	25	-	12	-
Nev	3	-	1	-	-	-	25	-	4	-	3	-	-	3	-
PACIFIC	266	6	498	-	51	242	356	4	226	42	257	255	2	199	130
Wash	20	3	125	-	25	42	52	-	7	10	78	46	-	11	11
Oreg	15	-	3	-	4	3	22	N	N	-	10	21	-	1	1
Calif	230	3	351	-	21	178	269	1	196	32	159	154	2	183	75
Alaska	-	-	-	-	-	-	11	-	6	-	2	27	-	-	1
Hawaii	1	-	19	-	1	19	2	3	17	-	8	7	-	4	42
Guam	1	-	4	-	1	11	1	-	4	-	-	-	-	3	2
P R	4	-	33	-	-	50	2	1	21	-	11	8	-	58	24
V I	-	U	-	U	-	10	-	U	13	U	-	-	U	-	-
Pac Trust Terr	-	-	-	-	-	-	1	-	7	-	-	-	-	1	-
Amer Samoa	-	-	2	-	-	-	-	-	3	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations.

N Not notifiable U Unavailable [†] International [§] Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 9, 1986, and August 10, 1985 (32nd Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	15,877	16,266	2	13,241	12,819	76	171	450	3,338
NEW ENGLAND	299	338	-	409	432	1	10	5	3
Maine	15	9	-	30	35	-	-	-	-
N H	10	7		10	15	-	-	-	-
Vt	6	4		13	4	-	-	-	-
Mass	160	174	-	213	257	1	8	2	-
R I	16	11	-	27	35	-	-	2	1
Conn	92	133	-	116	86	-	2	1	2
MID ATLANTIC	2,283	2,131	-	2,699	2,365	1	14	15	395
Upstate N Y	99	149	-	391	400	-	2	6	50
N Y City	1,295	1,322	-	1,419	1,172	-	6	5	-
N J	422	413	-	477	317	1	5	1	12
Pa	467	247	-	412	476	-	1	3	333
E N CENTRAL	643	704	-	1,582	1,589	-	13	50	79
Ohio	84	92	-	280	293	-	2	48	9
Ind	76	63	-	168	199	-	2	-	12
Ill	338	362	-	691	689	-	2	1	23
Mich	111	146	-	369	311	-	5	1	16
Wis	34	41	-	74	97	-	2	-	19
W N CENTRAL	138	138	-	389	342	21	7	28	536
Minn	24	28	-	97	70	-	1	1	60
Iowa	6	15	-	32	42	1	-	1	122
Mo	76	69	-	191	160	17	5	12	60
N Dak	2	2	-	6	6	-	-	1	116
S Dak	2	4	-	16	18	2	-	5	115
Nebr	11	7	-	7	13	1	-	4	22
Kans	17	13	-	40	33	-	1	4	41
S ATLANTIC	4,785	4,737	-	2,539	2,615	8	21	214	786
Del	31	24	-	27	27	-	-	1	-
Md	271	259	-	185	238	2	5	23	387
D C	191	218		87	101	-	2	-	24
Va	228	187	-	211	230	2	5	32	113
W Va	14	12	-	73	67	-	3	7	21
N C	321	415	-	350	327	1	3	75	6
S C	407	494	-	328	336	-	-	55	38
Ga	927	830	-	390	413	3	-	20	117
Fla	2,395	2,298	-	888	876	-	3	1	80
E S CENTRAL	1,050	1,230	-	1,137	1,131	7	1	55	215
Ky	51	37	-	270	246	3	-	11	57
Tenn	380	367	-	328	325	3	-	24	97
Ala	337	406	-	356	352	1	-	12	59
Miss	282	420	-	183	208	-	1	8	2
W S CENTRAL	3,228	3,762	-	1,690	1,574	34	13	76	502
Ark	165	193	-	221	170	24	-	3	114
La	547	655	-	279	221	1	1	-	14
Okla	85	106	-	161	167	6	1	63	43
Tex	2,431	2,808	-	1,029	1,016	3	11	10	331
MOUNTAIN	373	433	1	306	336	3	8	7	468
Mont	6	3	1	16	46	-	1	3	162
Idaho	8	4	-	12	15	-	-	-	1
Wyo	-	6	-	-	5	-	-	1	211
Colo	93	105	-	22	43	-	1	3	9
N Mex	46	72	-	66	61	1	-	-	4
Ariz	150	217	-	153	137	-	3	-	76
Utah	10	5	-	20	7	1	2	-	1
Nev	60	21	-	17	22	1	1	-	4
PACIFIC	3,078	2,793	1	2,490	2,435	1	84	-	354
Wash	72	77	-	120	139	-	3	-	5
Oreg	70	57	-	86	82	-	-	-	-
Calif	2,909	2,612	1	2,124	2,028	-	77	-	341
Alaska	2	2	-	37	68	1	1	-	8
Hawaii	25	45	-	123	118	-	3	-	-
Guam	1	2	-	33	30	-	-	-	-
P R	544	491	-	181	222	-	4	-	30
V I	-	1	U	1	1	-	-	-	-
Pac Trust Terr	165	80	-	38	38	-	40	-	-
Amer Samoa	-	-	-	3	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending August 9, 1986 (32nd Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	578	399	121	38	12	8	33
Boston, Mass	140	87	37	13	1	2	13
Bridgeport, Conn	46	38	4	2	1	1	1
Cambridge, Mass	31	26	4	1	-	-	4
Fall River, Mass	25	21	3	-	1	-	-
Hartford, Conn	45	29	11	4	-	1	1
Lowell, Mass	23	12	9	2	-	-	2
Lynn, Mass	19	16	2	-	1	-	1
New Bedford, Mass	24	19	3	2	-	-	1
New Haven, Conn	30	20	4	3	3	-	2
Providence, R I	54	34	15	2	2	1	2
Somerville, Mass	9	6	3	-	-	-	2
Springfield, Mass	46	28	12	3	1	2	1
Waterbury, Conn	29	22	2	3	2	-	1
Worcester, Mass	57	41	12	3	-	1	2
MID ATLANTIC	2,665	1,679	562	243	85	96	105
Albany, N Y	54	32	13	4	2	3	-
Allentown, Pa	16	12	3	1	-	-	-
Buffalo, N Y	93	53	26	3	5	6	2
Camden, N J	35	23	9	2	-	1	-
Elizabeth, N J	18	12	3	2	1	-	2
Erie, Pa †	36	29	4	-	2	1	1
Jersey City, N J	57	41	8	-	1	7	3
N Y City, N Y	1,302	803	263	159	36	41	42
Newark, N J	98	45	22	18	8	5	3
Paterson, N J	35	24	6	3	1	1	-
Philadelphia, Pa	490	302	121	29	18	20	30
Pittsburgh, Pa †	48	36	6	2	1	3	1
Reading, Pa	36	23	11	1	1	-	6
Rochester, N Y	123	80	27	5	4	7	11
Schenectady, N Y	35	29	4	2	-	-	1
Scranton, Pa †	32	21	8	1	2	-	-
Syracuse, N Y	69	49	16	3	1	-	-
Trenton, N J	38	26	6	4	1	1	1
Utica, N Y	22	16	2	3	1	-	1
Yonkers, N Y	28	23	4	1	-	-	1
E N CENTRAL	2,276	1,416	540	169	57	94	77
Akron, Ohio	79	54	15	4	4	2	-
Canton, Ohio	38	27	9	2	-	-	1
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	130	82	25	11	5	7	9
Cleveland, Ohio	146	94	37	10	4	1	2
Columbus, Ohio	138	79	42	10	3	4	4
Dayton, Ohio	120	69	38	7	1	5	3
Detroit, Mich	288	146	77	33	16	16	10
Evansville, Ind	32	19	6	2	2	3	3
Fort Wayne, Ind	47	27	17	1	-	2	5
Gary, Ind	15	6	4	4	1	-	1
Grand Rapids, Mich	41	30	5	4	-	2	5
Indianapolis, Ind	192	114	46	16	4	12	4
Madison, Wis	42	27	6	3	2	4	2
Milwaukee, Wis	120	87	23	5	1	4	4
Peoria, Ill	41	24	8	3	1	5	2
Rockford, Ill	43	32	9	1	1	-	2
South Bend, Ind	52	37	13	2	-	-	2
Toledo, Ohio	97	69	20	5	2	1	2
Youngstown, Ohio	51	31	15	1	-	4	-
W N CENTRAL	713	498	145	28	21	21	37
Des Moines, Iowa	56	37	14	2	2	1	4
Duluth, Minn	35	25	5	3	1	1	-
Kansas City, Kans	37	22	11	2	1	1	1
Kansas City, Mo	125	83	29	6	5	2	5
Lincoln, Nebr	35	25	6	3	1	-	2
Minneapolis, Minn	55	41	9	2	1	2	4
Omaha, Nebr	89	66	17	3	1	2	7
St Louis, Mo	133	99	22	4	3	5	9
St Paul, Minn	73	50	17	1	3	2	1
Wichita, Kans	75	50	15	2	3	5	4

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
S ATLANTIC	1,140	677	255	135	33	38	45
Atlanta, Ga	133	76	35	13	7	2	-
Baltimore, Md	183	111	50	11	4	7	5
Charlotte, N C	55	31	13	6	1	4	4
Jacksonville, Fla	105	73	20	9	1	2	5
Miami, Fla	109	52	30	22	3	2	4
Norfolk, Va	37	20	10	1	4	2	3
Richmond, Va	61	39	11	9	2	-	4
Savannah, Ga	48	25	13	5	3	2	2
St Petersburg, Fla	122	102	14	6	-	-	9
Tampa, Fla	57	35	11	5	3	2	3
Washington, D C	208	97	45	45	6	15	5
Wilmington, Del	22	16	3	3	-	-	1
E S CENTRAL	686	419	166	50	27	24	32
Birmingham, Ala	118	71	26	12	4	5	3
Chattanooga, Tenn	50	37	10	2	-	1	3
Knoxville, Tenn	56	38	12	4	1	1	5
Louisville, Ky	113	66	33	5	4	5	2
Memphis, Tenn	130	85	31	10	3	1	5
Mobile, Ala	36	25	10	-	1	-	2
Montgomery, Ala	54	27	14	3	4	6	4
Nashville, Tenn	129	70	30	14	10	5	8
W S CENTRAL	1,345	774	314	149	60	45	40
Austin, Tex	62	36	15	8	2	1	2
Baton Rouge, La	23	12	5	3	-	3	-
Corpus Christi, Tex	44	21	11	9	1	2	1
Dallas, Tex	182	97	55	13	10	7	4
El Paso, Tex	51	28	10	7	3	2	1
Fort Worth, Tex	87	51	18	10	2	6	1
Houston, Tex	384	204	95	49	23	13	5
Little Rock, Ark	39	21	12	3	2	1	4
New Orleans, La	120	76	27	10	4	3	1
San Antonio, Tex	156	96	32	18	6	4	4
Shreveport, La	73	48	12	8	3	2	6
Tulsa, Okla	124	86	22	11	4	1	11
MOUNTAIN	650	399	131	74	32	14	26
Albuquerque, N Mex	94	61	14	8	11	-	3
Colo Springs, Colo	33	21	6	4	2	-	3
Denver, Colo	97	54	21	16	3	3	1
Las Vegas, Nev	87	47	23	12	4	1	3
Ogden, Utah	21	15	4	2	-	-	4
Phoenix, Ariz	139	80	26	17	7	9	5
Pueblo, Colo	23	18	4	1	-	-	3
Salt Lake City, Utah	47	28	13	1	4	1	-
Tucson, Ariz	109	75	20	13	1	-	4
PACIFIC	1,888	1,203	375	180	58	71	102
Berkeley, Calif	24	18	5	1	-	-	3
Fresno, Calif	88	55	16	7	7	3	9
Glendale, Calif	31	25	4	2	-	-	1
Honolulu, Hawaii	74	51	14	4	2	3	7
Long Beach, Calif	77	51	14	5	2	5	5
Los Angeles, Calif	507	313	99	64	17	13	9
Oakland, Calif	81	52	12	9	4	4	3
Pasadena, Calif	35	25	4	1	-	5	2
Portland, Oreg	131	90	21	8	4	8	5
Sacramento, Calif	131	83	30	8	3	7	12
San Diego, Calif	135	78	31	14	6	5	15
San Francisco, Calif	149	84	35	23	2	4	6
San Jose, Calif	173	109	37	17	3	7	13
Seattle, Wash	156	99	32	15	4	6	8
Spokane, Wash	52	38	10	1	2	1	3
Tacoma, Wash	44	32	11	1	-	-	1
TOTAL	11,941††	7,464	2,609	1,066	383	411	497

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* Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

** Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages

§ Data not available. Figures are estimates based on average of past 4 weeks.

Table V. Estimated years of potential life lost before age 65 and cause-specific mortality, by cause of death — United States, 1984

Cause of mortality (Ninth Revision ICD)	Years of potential life lost by persons dying in 1984*	Cause-specific mortality† (rate/100,000)
ALL CAUSES (Total)	11,761,000	866.7
Unintentional injuries§ (E800-E949)	2,308,000	40.1
Malignant neoplasms (140-208)	1,803,000	191.6
Diseases of the heart (390-398, 402, 404-429)	1,563,000	324.4
Suicide, homicide (E950-E978)	1,247,000	20.6
Congenital anomalies (740-759)	684,000	5.6
Prematurity¶ (765, 769)	470,000	3.5
Sudden infant death syndrome (798)	314,000	2.4
Cerebrovascular diseases (430-438)	266,000	65.6
Chronic liver diseases and cirrhosis (571)	233,000	11.3
Pneumonia and influenza (480-487)	163,000	25.0
Chronic obstructive pulmonary diseases (490-496)	123,000	29.8
Diabetes mellitus (250)	119,000	15.6

*For details of calculation, see footnotes for Table V, *MMWR* 1986;35:27.

†Cause-specific mortality rates as reported in the MVSR are compiled from a 10% sample of all deaths.

§Equivalent to accidents and adverse effects.

¶Category derived from disorders relating to short gestation and respiratory distress syndrome.

Recommendation of the Immunization Practices Advisory Committee (ACIP)

Monovalent Influenza A(H1N1) Vaccine, 1986-1987

These supplemental recommendations provide guidelines for a monovalent influenza A(H1N1) vaccine for protection against a newly emerged variant of influenza that has recently caused outbreaks among children and young adults in Asia. Guidance is provided for the use of this monovalent vaccine, which contains 15 µg of A/Taiwan/1/86(H1N1) antigen, as a supplement to the standard trivalent influenza vaccine. Recommendations for the use of the

Influenza Viruses — Continued

*standard trivalent influenza vaccine for the 1986-1987 season and the use of antivirals for the prevention and treatment of influenza (*MMWR *1986;35:317-26, 331) remain in effect and should be referred to in conjunction with this supplemental recommendation. The trivalent vaccine is intended to protect against currently circulating strains of influenza A(H3N2) and influenza B viruses and may provide partial protection against the new influenza A(H1N1) variant.**

INTRODUCTION

Influenza A(H1N1) viruses circulated throughout the world from at least the mid-1930s until 1957, and many epidemics during this period were associated with severe illness and excess mortality (*1*). Influenza A(H1N1) viruses similar to a strain seen in 1950 reappeared in epidemic form in 1977, but outbreaks were detected only among children and young adults. In 1978-1979, when a U.S. epidemic was caused exclusively by type A(H1N1) virus, widespread outbreaks occurred among children and young adults, but no excess mortality was observed at the national level (*1*).

Influenza A(H1N1) viruses, like other human influenza viruses, have continued to undergo antigenic variation and have caused outbreaks in the United States during several winters, most recently that of 1983-1984. Since 1977, the incidence of illness associated with influenza A(H1N1) infection has been very low among older adults; such illnesses have generally been mild (*2*); and virtually no outbreaks have been detected among older age groups, even though the post-1977 antigenic variants have differed from those that circulated before 1957 (*3*). A temporal relationship between the occurrence of influenza A(H1N1) infections in the community and increased hospitalizations of older persons for acute respiratory disease (ARD) has been reported in one investigation (*4*); however, the severity of ARD (e.g., incidence of pneumonia) and the excess number of hospitalizations for ARD associated with influenza are not known. Furthermore, from 1982 to 1986, the laboratories collaborating in CDC's influenza virus surveillance program reported 1,049 influenza type A(H1N1) virus isolates, of which only six (0.6%) were obtained from persons aged 65 years or older. During the same period, 566 (22%) of 2,635 type A(H3N2) and 169 (9%) of 1,905 type B viruses were isolated from persons in this age group. This indicates that, although older Americans have had repeated exposure to all three currently circulating influenza strains, they do not have the same level of natural protection against illness caused by new variants of type A(H3N2) or type B viruses as they do against new variants of type A(H1N1) virus. Thus, it appears that, in influenza A(H1N1) epidemics since 1977, children and young adults have been particularly at risk of infection and illness and that the frequency of illness has decreased markedly among persons born before the mid-1950s. Nevertheless, some persons born before this time remain susceptible to infection and may have respiratory illnesses requiring medical attention.

Following the 1983-1984 influenza season, A(H1N1) strains were isolated infrequently in most parts of the world. The majority of A(H1N1) isolates in 1984 and 1985 continued to resemble the A/Chile/1/83 strain (which was first included in the trivalent influenza vaccine for 1984-1985), and A/Chile/1/83 was, therefore, chosen to remain the A(H1N1) component for the trivalent vaccine previously recommended for 1986-1987 (*5*). However, A(H1N1) viruses from influenza outbreaks in several Asian countries during March-May 1986 have recently been found to be poorly inhibited by antibody induced by the A/Chile/1/83 strain. In

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*Product information about influenza vaccines can be obtained from the following manufacturers: Connaught (vaccine distributed by Squibb)—(609) 921-4000; Parke-Davis—(800) 223-0432; Wyeth—(800) 321-2304.

Influenza Vaccine — Continued

contrast, these viruses were all well inhibited by antisera to representatives of the new isolates. In addition, tests of antibody response induced by A/Chile/1/83 vaccine among children or adults showed four- to sixfold lower postvaccination geometric mean titers against representatives of the new variants than against A/Chile/1/83 (*6,7*).

It is not possible to predict how widely these new A(H1N1) variants will circulate in the United States during 1986-1987, nor the actual level of protection that A/Chile/1/83 vaccine will induce against them. However, it seems prudent to maximize protection of individuals at high risk of serious complications following influenza A(H1N1) infection in the event that these newer A(H1N1) viruses do cause major outbreaks in the United States. Vaccine manufacturers have, therefore, been requested to initiate production of a supplemental monovalent A(H1N1) influenza vaccine for use before the 1986-1987 season.

Influenza A(H3N2) and type B viruses closely related to the strains in the 1986-1987 vaccine have continued to circulate throughout the world and may also appear in the United States during the 1986-1987 influenza season. The supplemental influenza A(H1N1) vaccine, unlike the 1986-1987 trivalent vaccine, will not contain representative antigens for virus types A(H3N2) and B. It is, therefore, imperative that the trivalent vaccine continue to be used as previously recommended (5). Programs for administration of the 1986-1987 trivalent vaccine to high-priority target groups should not be delayed, regardless of the time of availability of the supplemental A(H1N1) vaccine.

RECOMMENDATION

Individuals under 35 years of age for whom influenza vaccination has been specifically recommended (*5*) should receive both the standard trivalent vaccine and the monovalent A/Taiwan/1/86(H1N1) vaccine.

Any high-risk person aged 35 years and older, or any other person who wishes to be immunized, may also receive the supplemental vaccine.

PERSONS WHO SHOULD NOT BE VACCINATED

Inactivated influenza vaccine of any kind should not be given to persons who have an anaphylactic sensitivity to eggs. Persons with acute febrile illnesses should not be vaccinated until their temporary symptoms have abated. For recommendations regarding the use of influenza vaccine during pregnancy, refer to the previously published recommendations for the control of influenza (*5*).

TIMING OF INFLUENZA VACCINATION ACTIVITIES

Recommendations for the timing of influenza vaccination activities with the trivalent vaccine for use in 1986-1987 have been published (*5*). ***Those recommendations remain in effect. Additional recommendations below (Table 5) apply to persons receiving the supplemental A(H1N1) vaccine in conjunction with the 1986-1987 trivalent vaccine.***

Children aged 12 years or younger who have never received any influenza vaccine containing type A(H1N1) antigen (i.e., any influenza vaccine since 1978-1979) are considered unprimed and require two doses of the standard trivalent vaccine with an interval of at least 4 weeks between doses. The timing and number of monovalent A(H1N1) vaccine doses required will vary depending on whether the recipient has been primed by prior vaccination or infection and on the timing of doses administered for the current season (Table 5).

If the supplemental monovalent vaccine is not available at the time vaccination programs would normally be undertaken, vaccination with the standard trivalent vaccine should not be delayed.

Influenza Vaccine — Continued

TABLE 5. Timing and dosage schedules for use of the supplemental 1986-1987 monovalent A(H1N1) influenza vaccine in conjunction with the 1986-1987 trivalent vaccine

AGE	INFLUENZA VACCINATION STATUS		ADDITIONAL VACCINATIONS
	Any Influenza Vaccine 1978/1979-1985/1986	Doses of 1986/1987 Trivalent Vaccine Received	Vaccination Schedule* for Future 1986/1987 Vaccination
6 mos.–12 yrs.	NO (unprimed)	NONE	Trivalent + monovalent simultaneously in 2 sites on each of 2 visits ≥ 4 wks. apart
		1	Trivalent + monovalent simultaneously in 2 sites ≥ 4 wks. after 1st trivalent
		2	Monovalent ≥ 4 wks. after trivalent
	YES (primed)	NONE	Trivalent + monovalent simultaneously in 2 sites
		1	Monovalent ≥ 4 wks. after trivalent
≥ 13 yrs.	DOESN'T MATTER	NONE	Trivalent + monovalent simultaneously in 2 sites
		1	Monovalent ≥ 4 wks. after trivalent

*If monovalent vaccine is not available when trivalent vaccine is scheduled, do not delay administration of trivalent vaccine. After at least one dose of the trivalent vaccine has been administered, only one dose of the monovalent vaccine will be needed. This may be given either simultaneously with the scheduled second dose of trivalent vaccine for a child receiving two doses of trivalent vaccine or 4 weeks or more after the last dose of trivalent vaccine administered.

Influenza Vaccine — Continued

It is anticipated that the supplemental monovalent vaccine will not be available until November-December 1986. If influenza A outbreaks begin to occur before vaccination, temporary chemoprophylaxis with the antiviral agent, amantadine, may be indicated. Recommendations for amantadine use for prophylaxis and treatment of influenza A infections have been published (*5*).

Information about the availability of the supplemental vaccine and the occurrence of influenza will be made available to state health officials by electronic communication and will be published in the *MMWR*.

RECOMMENDED DOSAGE OF SUPPLEMENTAL MONOVALENT INFLUENZA VACCINE

The 1986-1987 supplemental monovalent vaccine contains 15 μg of A/Taiwan/1/86 antigen in each 0.5-ml dose. As with the standard trivalent vaccine, the recommended dosage of the monovalent vaccine should be reduced to 0.25 ml for children 6-35 months of age. Only split-virus vaccine, suitable for use in children or adults, will be manufactured. When administered simultaneously with the 1986-1987 trivalent vaccine, the vaccines should be given in separate sites (e.g., right and left deltoid or thigh). For more specific information, see the recommendations for 1986-1987 (*5*).

SIDE EFFECTS AND ADVERSE REACTIONS

Children aged 6-35 months will receive a total of 30.0 μg of antigen when given both vaccines simultaneously, compared with 22.5 μg when given trivalent influenza vaccine alone; children 3 years of age or older and adults will receive a total of 60.0 μg of antigen when given both vaccines simultaneously, 45.0 μg when given only the trivalent vaccine. Studies of the effect of different doses of influenza vaccine antigen administered to children and adults suggest that the amounts of antigen delivered by simultaneous administration of the trivalent and monovalent vaccines will result in no significant differences in the occurrence or severity of systemic adverse reactions compared with administration of trivalent vaccine alone (*8-10*).

More information on side effects and adverse reactions associated with inactivated influenza vaccine has been published (*5*).

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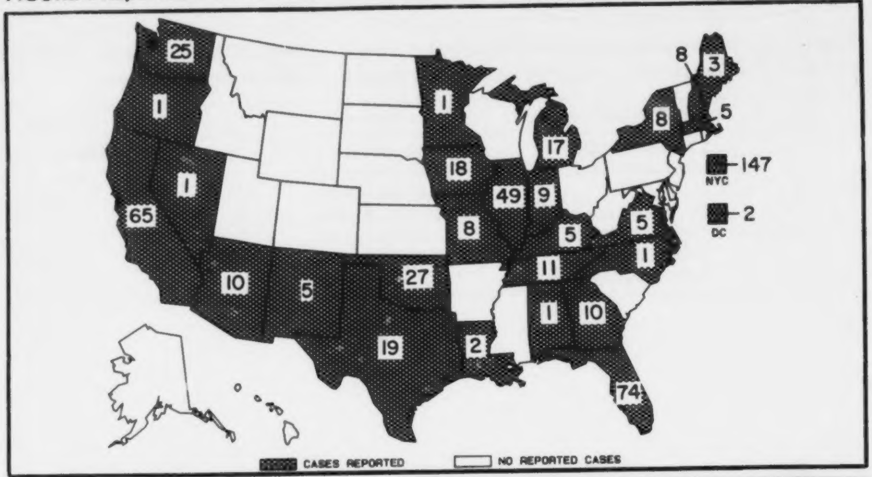
Erratum : Vol. 35, No. 30

p. 490 In the article "Release of Botulism Antitoxin," several incorrect telephone numbers were published in Table 2 on page 491. Corrections are indicated below in bold type.

State	Daytime no.	24-hour or night no.
Arkansas	(501) 661-2597	**(501) 982-5697**
Delaware	**(302) 736-5617**	**(302) 734-5462**
Florida	**(904) 488-2905**	
Hawaii	**(808) 548-5986**	(808) 247-2191
Maine	(207) 289-3591	(800) 821-5821 **(In state)**
Virginia	**(804) 936-6261**	**(804) 786-0000**
Washington	(206) 361-2914	**(206) 361-2914**

FIGURE I. Reported measles cases — United States, weeks 28-31, 1986



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The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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CENTERS FOR DISEASE CONTROL

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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Current Trends

Measles — United States, First 26 Weeks, 1986

During the first 26 weeks of 1986, a provisional total of 3,921 measles cases was reported in the United States, an increase of 117.6% over the 1,802 cases reported during the same period in 1985 (*1*). The overall incidence rate for the 26-week period in 1986 was 1.7/100,000 population, compared with 0.8/100,000 for 1985. Nine states accounted for 3,185 (81.2%) cases: New Jersey (876), Illinois (412), New York (369), California (299), Arkansas (278), South Carolina (274), Arizona (243), Texas (242), and Wisconsin (192). Eighteen states and New York City had incidence rates greater than 1/100,000 population. Seven states and New York City had incidence rates greater than 3/100,000 population: Arkansas, New Jersey, Arizona, South Carolina, Kansas, Wisconsin, and Illinois. During the first 26 weeks of 1986, 42 states and 9.0% of the nation's 3,139 counties reported measles cases (indigenous or imported), compared with 20 states and 2.5% of the counties in 1985.

Eighty outbreaks (i.e., five or more epidemiologically linked cases) have occurred: nine had more than 100 cases each (three of these had more than 200 cases); five had 51-100 cases each; 11 had 26-50 cases each; and 55 had up to 25 cases.

Detailed information was provided to CDC's Division of Immunization on all 3,921 cases. Of these, 3,824 (97.5%) met the standard case definition for measles*, and 1,174 (29.9%) were serologically confirmed. The number of cases reported weekly began to rise soon after the first of the year and reached a maximum at week 11. The decrease in the number of patients with rash onset after week 21 may be due to a delay in reporting rather than a true decrease (Figure 1).

The incidence rate of measles in all age groups increased substantially between 1985 and 1986. However, the age characteristics of cases differed between the two 26-week periods (Table 1). During the first 26 weeks of 1985, the highest incidence rate was reported for persons 15-19 years of age. By comparison, during the first 26 weeks of 1986, the highest incidence rate occurred among children 0-4 years of age (7.0/100,000), followed by children 10-14 years of age (5.7/100,000). The latter group had the greatest increase in incidence rate between years. Of the 1,249 reported cases among preschool-aged children, 355 (28.4%) were infants under 1 year of age; 212 (17.0%) were 12-14 months of age; 55 (4.4%) were 15 months of age; and 627 (50.2%) were 16 months-4 years of age.

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*Fever (38.3 C [101 F] or higher, if measured), generalized rash of 3 days or longer duration, and at least one of the following: cough, coryza, conjunctivitis.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES / PUBLIC HEALTH SERVICE

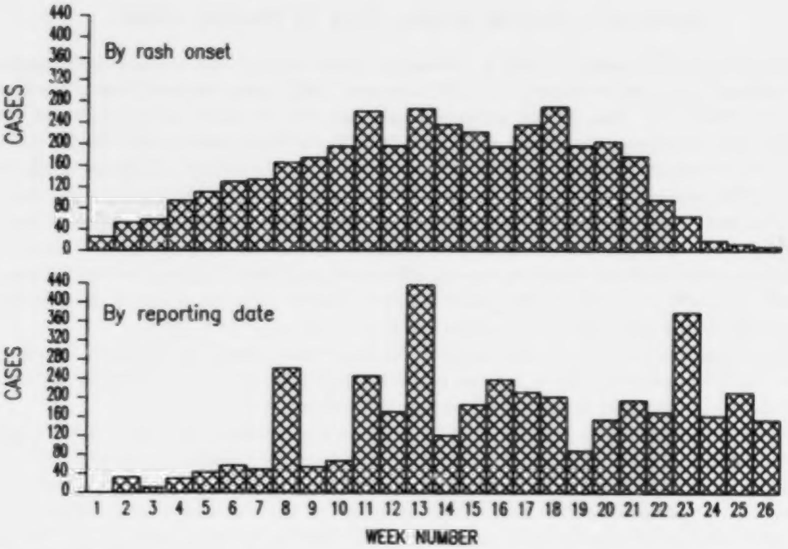
HE 20:7009:

Measles — Continued

Of the 2,466 (62.9%) patients for whom setting of transmission was reported, 1,371 (55.6%) acquired measles in primary or secondary schools; 203 (8.2%), in colleges or universities; 423 (17.2%), at home; 143 (5.8%), in medical settings; 72 (2.9%), in day care; and 254 (10.3%), in a variety of other settings, including churches, sporting events, and summer camps.

Seventy-three (1.9%) cases were international importations. An additional 41 cases were epidemiologically linked to an international importation within two generations of infection.

FIGURE 1. Reported measles cases, by week of rash onset and by week of report* — United States, first 26 weeks, 1986



*MMWR data; includes patients with rash onset in 1985.

TABLE 1. Age distribution and estimated incidence rates of measles — United States, first 26 weeks, 1985* and 1986*

	1985			1986			
Age group (yrs.)	No.	(%)	Rate†	No.	(%)	Rate†	Percent change
0-4	466	(25.9)	2.5	1,249	(31.9)	7.0	+180.0
5-9	152	(8.4)	0.9	430	(11.0)	2.6	+188.9
10-14	319	(17.7)	1.8	1,006	(25.7)	5.7	+216.7
15-19	603	(33.5)	3.1	749	(19.1)	3.9	+25.8
20-24	175	(9.7)	0.8	243	(6.2)	1.1	+37.5
≥25	86	(4.8)	0.1	224	(5.7)	0.2	+100.0
Unknown	0	(0.0)		20	(0.5)		
Total	**1,801**	**(100.0)**	**0.8**	**3,921**	**(100.0)**	**1.7**	**+112.6**

*Provisional data.

†Per 100,000 population.

Therefore, a total of 114 (2.9%) of all cases were programmatically classified as international importations during this period (*2*). However, it is likely that additional cases—for which source information was not available—were related to international importations.

A total of 1,730 (44.1%) patients had been vaccinated on or after the first birthday, including 724 (18.5%) who were vaccinated at 12-14 months of age. There were 2,001 (51.0%) unvaccinated patients, and 190 (4.8%) with histories of inadequate vaccination (vaccinated before the first birthday).

Of the 3,921 cases, 1,403 (35.8%) were classified as preventable (*2*) (Table 2). From 1985 to 1986, the absolute number and proportion of cases that were preventable increased in each age group. The highest proportion of preventable cases occurred among persons who were not of school age: 85.0% of cases among children 16 months-4 years of age were preventable (Table 2). Only 28.7% of cases among school-aged persons 5-19 years of age were preventable; however, 44.1% of all preventable cases occurred in this age group.

TABLE 2. Age distribution and preventability of measles cases — United States, first 26 weeks, 1985* and 1986*

	1985			1986			
		Preventable cases			Preventable cases		
Age group	**Total cases**	**No.**	**(%)**	**Total cases**	**No.**	**(%)**	**Percent change**[†]
≤ 15 mos.	242	0	(0.0)	622	0	(0.0)	0.0
16 mos.-4yrs.	224	155	(69.2)	627	533	(85.0)	+22.8
5-9 yrs.	152	32	(21.1)	430	144	(33.5)	+58.8
10-14 yrs.	319	52	(16.3)	1,006	242	(24.1)	+47.9
15-19 yrs.	603	135	(22.4)	749	238	(31.8)	+42.0
20-24 yrs.	175	60	(34.3)	243	174	(71.6)	+108.7
25-29 yrs.	53	32	(60.4)	88	72	(81.8)	+35.4
≥ 30 yrs.	33	0	(0.0)	136	0	(0.0)	0.0
Total	**1,801**	**466**	**(25.9)**	**3,901**[§]	**1,403**	**(35.8)**	**+38.2**

*Provisional data.

[†] In percentage of preventable cases.

[§] Excludes 20 for whom preventability status is not known.

TABLE 3. Reasons measles cases were classified as nonpreventable — United States, first 26 weeks, 1986*

Causes of nonpreventability	**No. cases (%)**		**Percentage of total cases**
Persons < 16 mos. of age	622 (24.7)		15.9
Persons born before 1957	136 (5.4)		3.5
Persons 16 mos.-28 yrs. of age	1,760 (69.9)		44.9
Adequately vaccinated		1,658 (94.2)	
Prior physician diagnosis		1 (0.1)	
Non-U.S. citizens		28 (1.6)	
Exemptions[†]		73 (4.1)	
Laboratory evidence of immunity		0 (0.0)	
Total	**2,518 (100.0)**		**64.2**

*Provisional data.

[†] Medical—nine; religious—41; philosophic—23.

Measles – Continued

Of the 2,518 nonpreventable cases, 622 (24.7%) were among persons too young for routine vaccination (under 16 months of age), and 136 (5.4%) were too old (born before 1957). Of the 1,760 who were between 16 months and 29 years of age, 1,658 (94.2%) had been vaccinated on or after the first birthday; one (0.06%) had a prior physician diagnosis of measles; 28 (1.6%) were non-U.S. citizens; and 73 (4.1%) had medical contraindications or exemptions under state law (Table 3).

Reported by Div of Immunization, Center for Prevention Svcs, CDC.

Editorial Note: The 3,921 measles cases reported through week 26 of 1986 exceed the total number of reported cases in any year since 1980, when 11,564 cases were reported during the comparable period. The 1986 figure is almost four times higher than the all-time low of 1,037 cases reported during the same period of 1983. Although the number of reported cases still represents less than 1% of that in the prevaccine era (*3*), when an average over 500,000 cases was reported annually, there is concern about the recent increase.

Incidence rates have increased in all age groups in 1986. The greatest increase (216.7%) occurred among persons 10-14 years of age. The highest incidence rate was in preschoolers who have accounted for almost one-third of all cases in 1986. The large number of cases among children 10-14 years of age was due to several large outbreaks in middle schools this

(Continued on page 533)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	33rd Week Ending			Cumulative, 33rd Week Ending		
	Aug. 16, 1986	Aug. 17, 1985	Median 1981-1985	Aug. 16, 1986	Aug. 17, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	303	188	N	7,936	4,819	N
Aseptic meningitis	347	457	432	4,544	4,237	4,237
Encephalitis: Primary (arthropod-borne & unspec.)	33	39	47	578	656	705
Post-infectious	1	1	1	68	87	64
Gonorrhea: Civilian	18,827	19,893	18,903	546,209	550,667	562,150
Military	346	511	511	10,441	13,296	15,420
Hepatitis: Type A	362	416	434	13,615	13,643	13,643
Type B	458	523	466	16,193	15,953	14,863
Non A, Non B	62	83	N	2,233	2,594	N
Unspecified	71	110	150	2,938	3,605	4,533
Legionellosis	18	10	N	397	451	N
Leprosy	1	9	7	139	250	161
Malaria	17	48	39	609	641	641
Measles: Total*	177	64	25	5,114	2,300	2,197
Indigenous	174	52	N	4,879	1,930	N
Imported	3	12	N	235	370	N
Meningococcal infections: Total	17	23	36	1,724	1,635	1,944
Civilian	17	23	36	1,722	1,629	1,940
Military	-	-	-	2	6	9
Mumps	55	28	28	3,210	2,117	2,360
Pertussis	68	86	54	1,823	1,412	1,308
Rubella (German measles)	11	10	10	379	476	745
Syphilis (Primary & Secondary): Civilian	390	561	640	16,293	16,827	19,051
Military	2	3	6	110	116	238
Toxic Shock syndrome	12	7	N	226	252	N
Tuberculosis	357	481	478	13,597	13,300	14,621
Tularemia	2	2	8	79	110	148
Typhoid fever	4	11	13	175	217	242
Typhus fever, tick-borne (RMSF)	36	35	36	486	433	720
Rabies, animal	131	99	140	3,483	3,356	4,038

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis	23
Botulism: Foodborne	6	Plague	4
Infant (Utah 1)	30	Poliomyelitis, Paralytic	-
Other	1	Psittacosis (N.C. 1, Colo. 2)	67
Brucellosis (Va. 2, Mont. 1, Colo. 2, N.Mex. 1)	47	Rabies, human	-
Cholera	-	Tetanus (La. 1, Idaho 1)	38
Congenital rubella syndrome	2	Trichinosis	20
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	32
Diphtheria	-		

*Two of the 177 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending August 16, 1986 and August 17, 1985 (33rd Week)

Reporting Area	AIDS	Aseptic Menin-gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel-losis	Leprosy
			Primary	Post-in-fectious			A	B	NA,NB	Unspeci-fied		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	7,936	347	578	68	546,209	550,667	362	458	62	71	18	169
NEW ENGLAND	347	18	17	3	13,428	14,775	9	26	3	4	1	6
Maine	12	2	-	-	570	697	-	4	-	-	-	-
N H	8	1	2	-	344	355	-	-	-	-	-	-
Vt	3	-	2	2	162	196	-	1	-	-	1	-
Mass	187	7	4	-	5,441	5,749	3	19	3	4	-	6
R I	19	5	-	-	1,092	1,132	1	-	-	-	-	-
Conn	118	3	9	1	5,819	6,646	5	2	-	-	-	-
MID ATLANTIC	3,009	48	67	6	93,374	80,080	14	31	1	22	-	11
Upstate N Y	295	15	26	4	10,957	10,601	8	9	1	-	-	1
N Y City	2,023	15	14	-	54,689	40,326	2	3	-	19	-	9
N J	489	18	10	-	11,877	12,180	4	19	-	3	-	-
Pa	202	-	17	2	15,851	16,973	-	-	-	-	-	1
E N CENTRAL	487	91	158	10	71,739	74,012	13	45	7	1	5	4
Ohio	100	15	47	2	18,435	18,767	4	17	3	-	5	-
Ind	46	21	38	3	7,670	7,546	2	9	3	1	-	-
Ill	238	21	33	4	20,473	20,001	-	-	-	-	-	3
Mich	78	34	33	1	22,393	20,771	7	19	1	-	-	1
Wis	25	-	7	-	2,768	6,927	-	-	-	-	-	-
W N CENTRAL	153	8	25	8	23,558	25,504	9	16	4	-	2	2
Minn	60	1	12	-	3,345	3,719	-	2	1	-	1	1
Iowa	10	-	7	-	2,385	2,775	2	4	-	-	-	-
Mo	51	3	-	-	11,860	12,292	3	5	1	-	1	-
N Dak	2	-	-	-	206	171	-	-	-	-	-	-
S Dak	1	-	5	-	480	471	3	-	-	-	-	-
Nebr	6	1	-	1	1,793	2,234	-	2	-	-	-	-
Kans	23	3	1	7	3,489	3,842	1	3	2	-	-	1
S ATLANTIC	1,109	91	76	23	141,677	142,302	50	137	16	11	4	1
Del	16	4	5	-	2,252	2,569	1	1	1	-	-	-
Md	123	19	25	1	16,582	18,367	2	20	-	-	-	-
D C	132	1	-	1	10,412	9,616	-	2	-	-	-	-
Va	106	28	23	1	11,718	11,927	5	36	6	2	2	1
W Va	6	4	11	-	1,414	1,533	-	2	-	-	-	-
N C	43	6	10	1	21,666	21,564	6	5	-	1	-	-
S C	23	-	-	-	12,312	13,828	-	18	1	-	1	-
Ga	170	5	-	1	24,057	28,639	4	24	3	-	-	-
Fla	490	24	2	18	41,264	34,259	32	29	5	8	1	-
E S CENTRAL	102	11	40	3	44,586	46,418	5	31	3	-	-	1
Ky	21	9	19	1	4,923	5,250	3	4	1	-	-	-
Tenn	53	2	3	1	17,193	17,856	1	7	-	-	-	-
Ala	18	-	17	1	12,782	14,133	1	11	2	-	-	1
Miss	10	-	1	-	9,688	9,179	-	9	-	-	-	-
W S CENTRAL	482	32	73	6	65,456	69,643	30	20	1	13	-	12
Ark	21	-	-	2	6,204	6,676	-	-	-	-	-	-
La	102	-	3	-	11,822	13,768	1	-	-	-	-	1
Okla	27	3	14	-	7,370	7,451	15	5	1	1	-	-
Tex	332	29	56	4	40,060	41,748	14	15	-	12	-	11
MOUNTAIN	201	6	20	1	16,033	17,249	33	22	7	2	1	11
Mont	4	-	-	1	458	474	3	2	1	-	1	-
Idaho	2	-	-	-	531	518	9	4	-	-	-	-
Wyo	4	-	2	-	357	417	-	-	-	-	-	-
Colo	96	4	3	-	4,193	5,137	4	8	1	2	-	3
N Mex	11	-	3	-	1,620	1,959	9	3	1	-	-	-
Ariz	50	U	8	-	5,082	5,113	U	U	U	U	U	5
Utah	10	1	3	-	696	749	5	2	3	-	-	1
Nev	24	1	1	-	3,096	2,882	3	3	1	-	-	2
PACIFIC	2,046	42	102	8	76,358	80,684	199	130	20	18	5	121
Wash	93	1	11	-	5,796	5,922	25	12	3	1	-	14
Oreg	41	-	-	-	3,171	3,997	35	9	4	1	-	-
Calif	1,873	32	89	8	64,770	67,744	139	106	13	16	5	84
Alaska	9	-	2	-	1,762	1,866	-	2	-	-	-	-
Hawaii	30	9	-	-	859	1,155	-	1	-	-	-	23
Guam	-	1	-	-	113	128	-	-	-	1	-	1
P R	76	-	4	-	1,483	2,201	1	-	-	-	-	7
V I	3	U	-	-	139	316	U	U	U	U	U	-
Pac Trust Terr	-	-	-	-	276	574	3	-	-	-	-	31
Amer Samoa	-	-	-	-	30	-	-	-	-	-	-	2

N Not notifiable U Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 16, 1986 and August 17, 1985 (33rd Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	809	174	4,879	3	235	2,300	1,724	55	3,210	68	1,823	1,412	11	379	476
NEW ENGLAND	31	-	74	1	8	123	122	4	53	3	100	78	-	9	12
Maine	1	-	10	-	-	1	23	-	-	-	2	5	-	-	-
N H	2	-	38	-	-	-	6	-	13	-	46	29	-	1	2
Vt	1	-	-	-	-	-	15	1	3	-	3	3	-	1	-
Mass	16	-	23	-	6	115	27	3	9	1	28	22	-	4	6
R I	4	-	2	-	-	-	16	-	9	1	4	12	-	2	-
Conn	7	-	1	1†	2	7	35	-	19	1	17	7	-	1	4
MID ATLANTIC	75	68	1,559	-	21	196	273	4	133	6	129	95	-	31	204
Upstate N Y	29	19	62	-	19	82	93	-	52	2	82	58	-	23	17
N Y City	22	49	570	-	2	60	57	-	5	-	3	9	-	5	163
N J	7	-	905	-	-	27	29	3	36	1	11	3	-	3	11
Pa	17	-	22	-	-	27	94	1	40	3	33	25	-	-	13
E N CENTRAL	30	14	949	-	16	510	234	33	2,185	12	240	263	2	34	26
Ohio	10	-	-	-	10	54	93	-	99	11	103	32	-	1	-
Ind	2	-	11	-	-	57	19	-	31	-	22	11	-	-	1
Ill	14	11	631	-	3	286	66	30	1,617	-	28	30	2	24	10
Mich	12	3	53	-	-	54	52	3	248	1	24	29	-	7	14
Wis	1	-	254	-	3	59	4	-	190	-	63	161	-	2	1
W N CENTRAL	22	51	321	-	17	11	83	1	82	5	150	94	-	10	19
Minn	5	-	45	-	4	6	16	-	1	1	43	28	-	-	2
Iowa	1	51	132	-	1	-	11	-	21	2	13	5	-	1	1
Mo	10	-	25	-	6	2	28	-	15	1	13	24	-	1	7
N Dak	-	-	25	-	1	2	-	-	3	-	4	9	-	1	2
S Dak	-	-	-	-	-	-	4	-	1	-	14	1	-	-	-
Nebr	4	-	-	-	-	-	9	-	-	1	1	4	-	-	-
Kans	2	-	94	-	5	1	15	1	41	-	62	23	-	7	7
S ATLANTIC	78	3	504	-	53	268	321	4	152	13	578	269	-	10	49
Del	1	-	1	-	-	-	2	-	-	-	222	-	-	-	1
Md	12	2	22	-	9	88	44	-	15	-	136	121	-	-	6
D C	1	-	-	-	2	8	4	-	-	-	-	-	-	-	-
Va	18	-	35	-	24	24	53	3	32	3	30	8	-	-	2
W Va	4	-	2	-	-	33	3	-	38	-	20	2	-	-	9
N C	4	-	2	-	1	9	55	-	14	3	41	16	-	-	-
S C	5	-	274	-	-	3	29	1	12	2	13	1	-	-	3
Ga	7	1	79	-	14	8	49	-	14	5	95	75	-	-	-
Fla	24	-	89	-	3	95	82	-	27	-	21	47	-	10	28
E S CENTRAL	16	-	56	-	8	4	98	1	24	4	37	17	2	4	2
Ky	4	-	-	-	6	2	23	1	6	3	5	3	2	4	2
Tenn	1	-	54	-	1	1	35	-	15	-	12	5	-	-	-
Ala	7	-	-	-	1	-	27	-	2	1	20	6	-	-	-
Miss	4	-	2	-	-	1	11	-	1	-	-	3	-	-	-
W S CENTRAL	58	-	585	-	34	419	150	1	147	3	135	211	-	55	29
Ark	-	-	276	-	2	-	21	-	7	-	8	12	-	-	1
La	8	-	4	-	-	42	22	-	2	1	8	10	-	-	-
Okla	8	-	37	-	2	1	20	N	N	-	89	119	-	-	1
Tex	42	-	268	-	30	376	87	1	138	2	30	70	-	55	27
MOUNTAIN	25	-	295	1	26	521	86	2	203	9	184	105	1	21	5
Mont	-	-	-	1†	8	137	8	-	5	1	8	5	-	2	-
Idaho	1	-	1	-	-	135	3	2	6	-	33	7	-	-	1
Wyo	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-
Colo	7	-	2	-	5	10	13	-	11	3	51	32	-	1	-
N Mex	4	-	32	-	7	5	7	N	N	1	17	11	-	-	2
Ariz	8	U	252	U	6	234	19	U	167	U	46	24	U	2	1
Utah	2	-	7	-	-	-	9	-	10	4	25	26	1	13	-
Nev	3	-	1	-	-	-	25	-	4	-	3	-	-	3	1
PACIFIC	267	38	536	1	52	248	359	5	231	13	270	280	6	205	130
Wash	21	33	158	-	25	42	53	-	7	3	81	50	3	14	11
Oreg	15	-	3	-	4	3	22	N	N	-	10	29	-	1	1
Calif	230	4	355	1§	22	184	271	5	201	10	169	162	3	186	75
Alaska	-	-	-	-	-	-	11	-	6	-	2	28	-	-	1
Hawaii	1	1	20	-	1	19	2	-	17	-	8	11	-	4	42
Guam	1	-	4	-	1	11	1	-	4	-	-	-	-	3	2
P R	4	-	33	-	-	50	2	-	21	1	12	9	-	58	25
V I	-	U	-	U	-	10	-	U	13	U	-	-	U	-	-
Pac Trust Terr	-	-	-	-	-	-	1	-	7	-	-	-	-	2	-
Amer Samoa	-	-	2	-	-	-	-	1	4	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations.

N Not notifiable U Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 16, 1986 and August 17, 1985 (33rd Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	16,293	16,827	12	13,597	13,300	79	175	486	3,483
NEW ENGLAND	303	348	1	418	450	1	10	8	3
Maine	15	9	-	31	35	-	-	-	-
N H	10	8	-	10	15	-	-	-	-
Vt	7	5	-	13	4	-	-	-	-
Mass	163	175	1	214	273	1	8	2	-
R I	16	11	-	27	35	-	-	3	1
Conn	92	140	-	123	88	-	2	3	2
MID ATLANTIC	2,355	2,196	-	2,788	2,442	1	14	16	410
Upstate N Y	99	155	-	399	430	-	2	7	53
N Y City	1,351	1,366	-	1,453	1,193	-	6	5	-
N J	422	428	-	484	336	1	5	1	14
Pa	483	247	-	452	483	-	1	3	343
E N CENTRAL	660	708	2	1,627	1,641	-	13	52	82
Ohio	85	93	-	287	301	-	2	50	9
Ind	77	63	-	174	201	-	2	-	13
Ill	351	362	-	713	711	-	2	1	23
Mich	113	148	2	375	325	-	5	1	16
Wis	34	42	-	78	103	-	2	-	21
W N CENTRAL	143	144	-	391	353	22	7	28	566
Minn	26	29	-	98	73	-	1	1	77
Iowa	6	16	-	33	43	1	-	1	125
Mo	78	73	-	191	167	17	5	12	62
N Dak	2	2	-	6	6	-	-	1	124
S Dak	3	4	-	16	18	2	-	5	115
Nebr	11	7	-	7	13	1	-	4	22
Kans	17	13	-	40	33	1	1	4	41
S ATLANTIC	4,939	4,961	2	2,624	2,688	8	24	233	820
Del	32	25	-	27	27	-	1	1	-
Md	282	284	-	192	242	2	6	26	405
D C	198	229	-	87	102	-	2	-	26
Va	239	190	1	219	239	2	5	43	116
W Va	14	12	1	74	70	-	3	7	24
N C	327	428	-	366	339	1	3	79	6
S C	423	505	-	343	337	-	-	55	38
Ga	956	859	-	398	432	3	-	21	124
Fla	2,468	2,429	-	918	900	-	4	1	81
E S CENTRAL	1,065	1,253	-	1,156	1,175	8	2	58	227
Ky	51	39	-	277	267	3	-	11	60
Tenn	380	388	-	331	343	4	1	25	97
Ala	352	406	-	365	357	1	-	14	68
Miss	282	420	-	183	208	-	1	8	2
W S CENTRAL	3,297	3,870	4	1,736	1,627	34	13	83	513
Ark	165	193	-	226	173	24	-	3	117
La	557	660	-	279	221	1	1	-	14
Okla	85	113	1	166	174	6	1	70	44
Tex	2,490	2,904	3	1,065	1,059	3	11	10	338
MOUNTAIN	379	445	2	312	345	4	8	8	489
Mont	6	3	1	18	46	1	1	4	168
Idaho	9	4	1	12	15	-	-	-	2
Wyo	-	6	-	-	5	-	-	1	219
Colo	96	107	-	24	43	-	1	3	12
N Mex	46	81	-	67	65	1	-	-	5
Ariz	150	218	U	153	141	-	3	-	76
Utah	12	5	-	21	8	1	2	-	3
Nev	60	21	-	17	22	1	1	-	4
PACIFIC	3,152	2,902	1	2,545	2,579	1	84	-	373
Wash	99	79	-	121	144	-	3	-	5
Oreg	74	59	-	87	84	-	-	-	-
Calif	2,952	2,716	1	2,176	2,163	-	77	-	360
Alaska	2	2	-	37	68	1	1	-	8
Hawaii	25	46	-	124	120	-	3	-	-
Guam	1	2	-	33	30	-	-	-	-
P R	564	497	-	198	226	-	4	-	33
V I	-	1	U	1	1	-	-	-	-
Pac Trust Terr	166	80	-	40	38	-	42	-	-
Amer Samoa	-	-	-	3	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending August 16, 1986 (33rd Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	604	402	124	35	17	26	38
Boston, Mass	189	113	41	12	9	14	15
Bridgeport, Conn	29	23	3	1	1	1	-
Cambridge, Mass	25	20	2	1	-	2	1
Fall River, Mass	14	12	2	-	-	-	-
Hartford, Conn	54	35	15	1	3	-	3
Lowell, Mass	27	19	5	2	1	-	1
Lynn, Mass	10	6	2	2	-	-	-
New Bedford, Mass	20	19	-	-	1	-	-
New Haven, Conn	54	32	15	4	1	2	3
Providence, R I	53	34	9	6	-	5	5
Somerville, Mass	6	4	2	-	-	-	1
Springfield, Mass	45	30	11	2	1	1	6
Waterbury, Conn	28	20	5	3	-	-	-
Worcester, Mass	50	35	12	2	-	1	3
MID ATLANTIC	2,514	1,566	544	251	65	84	103
Albany, N Y	52	26	16	3	2	5	1
Allentown, Pa	22	18	4	-	-	-	-
Buffalo, N Y	99	60	26	5	1	7	4
Camden, N J	37	21	10	4	2	-	-
Elizabeth, N J	17	13	4	-	-	-	-
Erie, Pa †	38	32	5	-	-	1	2
Jersey City, N J	49	29	8	6	-	2	-
N Y City, N Y	1,339	838	272	158	33	38	50
Newark, N J	110	42	29	28	8	3	7
Paterson, N J	27	15	5	5	1	1	1
Philadelphia, Pa	294	186	63	21	10	14	14
Pittsburgh, Pa †	72	50	16	2	1	3	3
Reading, Pa	37	25	11	1	-	-	9
Rochester, N Y	99	63	21	7	5	3	6
Schenectady, N Y	26	19	7	-	-	-	-
Scranton, Pa †	15	12	3	-	-	-	-
Syracuse, N Y	85	57	17	6	2	3	5
Trenton, N J	48	26	16	4	-	2	1
Utica, N Y	21	16	3	-	-	2	-
Yonkers, N Y	27	18	8	1	-	-	-
E N CENTRAL	2,215	1,403	481	180	70	81	99
Akron, Ohio	52	36	6	8	-	2	-
Canton, Ohio	40	27	8	4	-	1	2
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	89	60	20	6	-	3	7
Cleveland, Ohio	166	91	45	15	4	11	2
Columbus, Ohio	128	75	35	10	2	6	3
Dayton, Ohio	108	74	26	7	-	1	6
Detroit, Mich	256	124	65	39	19	9	12
Evansville, Ind	48	32	15	-	-	1	-
Fort Wayne, Ind	47	28	11	5	2	1	-
Gary, Ind	11	8	-	-	2	1	-
Grand Rapids, Mich	66	49	10	3	3	1	5
Indianapolis, Ind	156	101	36	10	3	6	5
Madison, Wis	42	22	6	4	9	1	6
Milwaukee, Wis	120	87	18	7	5	3	8
Peoria, Ill	44	31	6	1	3	3	3
Rockford, Ill	50	36	7	5	-	2	4
South Bend, Ind	59	38	13	3	4	1	6
Toledo, Ohio	119	84	24	4	4	3	14
Youngstown, Ohio	50	38	5	4	-	3	-
W N CENTRAL	735	501	139	49	25	21	25
Des Moines, Iowa	46	37	5	1	3	-	1
Duluth, Minn	17	13	3	1	-	-	1
Kansas City, Kans	40	25	9	2	2	2	1
Kansas City, Mo	125	74	30	12	4	5	5
Lincoln, Nebr	22	18	3	1	-	-	2
Minneapolis, Minn	129	71	36	12	5	5	1
Omaha, Nebr	82	57	10	7	5	3	1
St Louis, Mo	139	106	22	8	1	4	7
St Paul, Minn	77	59	10	2	4	2	3
Wichita, Kans	58	41	11	5	1	-	3
S ATLANTIC	1,251	746	293	122	49	41	45
Atlanta, Ga	164	92	35	26	5	6	3
Baltimore, Md	245	155	50	21	13	6	8
Charlotte, N C	78	43	24	6	4	1	5
Jacksonville, Fla	109	67	27	8	5	2	9
Miami, Fla	130	68	31	17	5	9	1
Norfolk, Va	58	27	18	9	3	1	3
Richmond, Va	67	38	22	3	1	3	4
Savannah, Ga	49	31	11	3	2	2	2
St Petersburg, Fla	116	88	21	4	1	2	5
Tampa, Fla	57	34	11	7	2	3	3
Washington, D C	152	85	36	17	8	6	2
Wilmington, Del	26	18	7	1	-	-	-
E S CENTRAL	768	475	179	53	23	37	37
Birmingham, Ala	100	50	36	7	5	2	-
Chattanooga, Tenn	57	40	13	4	-	-	3
Knoxville, Tenn	76	55	16	1	-	4	4
Louisville, Ky	111	62	33	9	4	3	6
Memphis, Tenn	214	135	41	12	5	20	13
Mobile, Ala	58	33	14	6	2	3	2
Montgomery, Ala	37	27	5	1	1	3	-
Nashville, Tenn	115	73	21	13	6	2	9
W S CENTRAL	1,384	790	312	154	75	51	48
Austin, Tex	68	34	11	14	4	5	1
Baton Rouge, La	25	15	6	2	2	-	1
Corpus Christi, Tex	45	23	5	10	5	2	-
Dallas, Tex	194	102	45	24	12	11	7
El Paso, Tex	61	33	10	3	5	9	1
Fort Worth, Tex	103	59	23	8	5	8	2
Houston, Tex	326	165	82	49	22	8	10
Little Rock, Ark	74	47	15	6	2	4	2
New Orleans, La	139	89	30	15	3	2	-
San Antonio, Tex	203	121	52	15	12	2	11
Shreveport, La	50	32	17	-	1	-	6
Tulsa, Okla	96	70	16	8	2	-	7
MOUNTAIN	606	357	140	47	38	24	24
Albuquerque, N Mex	130	76	21	10	19	4	4
Colo Springs, Colo	37	20	9	3	4	1	3
Denver, Colo	93	51	25	8	1	8	2
Las Vegas, Nev	89	47	28	6	3	4	6
Ogden, Utah	16	10	2	1	-	3	-
Phoenix, Ariz	100	56	29	8	4	3	4
Pueblo, Colo	18	16	2	-	-	-	2
Salt Lake City, Utah	45	30	5	3	7	-	1
Tucson, Ariz	78	51	18	8	-	1	2
PACIFIC	1,841	1,138	402	174	66	55	109
Berkeley, Calif	21	13	4	1	-	3	4
Fresno, Calif	87	52	14	8	6	7	11
Glendale, Calif	15	15	-	-	-	-	1
Honolulu, Hawaii	42	31	8	2	1	-	4
Long Beach, Calif	74	47	18	4	2	3	7
Los Angeles, Calif	547	324	124	63	25	5	15
Oakland, Calif	53	29	14	3	-	7	2
Pasadena, Calif	28	18	5	3	1	1	1
Portland, Oreg	116	77	27	6	4	2	5
Sacramento, Calif	121	78	25	10	5	3	14
San Diego, Calif	176	98	35	28	7	8	26
San Francisco, Calif	149	90	34	19	2	4	3
San Jose, Calif	156	96	42	12	6	-	10
Seattle, Wash	160	106	34	8	5	7	-
Spokane, Wash	59	42	12	2	2	1	4
Tacoma, Wash	37	22	6	5	-	4	2
TOTAL	11,918††	7,378	2,614	1,065	428	420	528

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

†Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages

§Data not available. Figures are estimates based on average of past 4 weeks.

Measles — Continued

year involving vaccinated students. The large number of cases in preschoolers was due to two large outbreaks in New York City and New Jersey this year in which predominately preschool-aged children were involved, most of whom were unvaccinated (*4*). The smallest increase in incidence rate was in persons 15-19 years. There were no large outbreaks on college campuses this year as in 1985 (*5*).

The reasons for the increase in measles cases and the more widespread occurrence this year are not clear. Investigations of various outbreaks this year indicate no single common problem. Rather, a variety of reasons, including vaccine failures and unvaccinated preschoolers, have contributed to the large number of outbreaks.

As the measles elimination strategy is successfully implemented, the proportion of preventable cases should decrease. Since the percentage of preventable cases increased to 36.6% this year from 25.2% in 1985, further improvement in implementing existing recommendations for measles elimination are necessary (*6*). As in 1984 and 1985, preschool-aged children over 15 months of age comprised the group with the largest proportion of preventable cases. Greater efforts need to be directed at this age group.

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Epidemiologic Notes and Reports

Occupational Fatality Following Exposure to Hydrogen Sulfide — Nebraska

Hydrogen sulfide (H_2S) is a potential hazard for workers in wastewater-treatment plants. Investigation of an occupational fatality resulting from exposure to H_2S in such a plant illustrates the hazards associated with this agent.

On September 3, 1983, a worker at a wastewater-treatment plant in Omaha, Nebraska, was found unconscious after he had gone to collect samples in the building where wastewater enters the plant. He died later that day from acute respiratory distress syndrome. A review of hospital records and the autopsy report showed the pattern of his fatal illness was compatible with exposure to H_2S.

On September 6, engineers of the City of Omaha requested that the National Institute for Occupational Safety and Health (NIOSH) evaluate working conditions and help develop a health and safety plan for the plant (*1*). NIOSH investigators collected 40 personal-breathing-zone* and 26 long-term area air samples for H_2S in all areas of the plant. Concentrations of H_2S in the personal air samples ranged from none detected to 2.2 parts per million (ppm); results from the long-term area air samples ranged from none detected to 56.0 ppm.

---

*Personal air samples are collected in the worker's breathing zone. Long-term area air samples are collected in the work area over an entire work shift. Instantaneous air samples are measured by a direct reading instrument.

Hydrogen Sulfide – Continued

The highest concentrations were found in the area near where the worker was apparently fatally overcome. Instantaneous area air samples for H_2S were also collected in this area. These concentrations ranged from 50 ppm to 200 ppm (the maximum reading on the instrument used) when one of the supply fans in the building malfunctioned.

During the week of October 17, 54 (83%) of the 65 workers in the plant responded to a self-administered questionnaire. Forty-one (76%) respondents indicated that, during the previous 2 weeks, they had experienced at least three of the symptoms known to be associated with H_2S exposure, most commonly cough (61%), eye irritation (57%), and nose irritation (54%). However, no clear association between frequency of symptoms and estimated exposure was found.

The exact circumstances resulting in the worker's death may never be known. NIOSH investigators concluded that the factors contributing to the death included: (1) the summer temperature and the long transit time of the sewage entering the plant (resulting in high concentrations of dissolved H_2S); (2) inappropriate design of the ventilation system; and (3) inadequate safety procedures for workers entering potentially dangerous areas. Based on these factors, NIOSH investigators provided recommendations to prevent any future fatal incidents.

Reported by NIOSH Region VII, Hazard Evaluations and Technical Assistance Br, Div of Surveillance, Hazard Evaluations, and Field Studies, National Institute for Occupational Safety and Health, CDC.

Editorial Note: At room temperature, H_2S is a colorless gas and has a characteristic rotten-egg odor. Although it has a rather low odor threshold (0.13 ppm), it can cause olfactory fatigue at 100 ppm in 2-15 minutes. It is a rapid-acting systemic poison that causes respiratory paralysis with consequent asphyxia at high concentrations (1,000-2,000 ppm). Inhalation of high concentrations may cause coma after a single breath and may be rapidly fatal. Prolonged exposure to 250 ppm H_2S may cause pulmonary edema. Exposure to concentrations above 50 ppm for 1 hour may produce acute conjunctivitis with pain, lacrimation, and photophobia; in severe form, this may progress to keratoconjunctivitis and vesiculation of the corneal epithelium. Prolonged exposure to concentrations as low as 50 ppm H_2S may cause rhinitis, pharyngitis, bronchitis, and pneumonitis. In low concentrations, H_2S may cause headache, fatigue, irritability, insomnia, eye and respiratory irritation, and gastrointestinal disturbances; in somewhat higher concentrations, it affects the central nervous system, causing excitement and dizziness (*2,3*).

The Occupational Safety and Health Administration (OSHA) has established a one-time, 10-minute exposure limit of 50 ppm during a work shift (*4*). NIOSH recommends that the concentration for a 10-minute sample not exceed 10 ppm and also that the area be evacuated if the concentration of H_2S exceeds 50 ppm (*2*).

The recommendations resulting from the Nebraska investigation provided a basis for preventing recurrence of the problem. The nature of the sewage (i.e., high concentration of H_2S) entering the plant probably contributed to the death of this worker. The NIOSH investigators recommended the plant retain a consulting firm to evaluate adding an aeration system or chemicals along the sewage-transit line to prevent the growth of bacteria that cause the production of H_2S. The average flow time through more than 25 miles of sewer pipe to the plant is approximately 8 hours. At all times, but especially during times of low flow and warmer water temperatures, the sewage becomes anaerobic, facilitating the production of H_2S by certain bacteria. The presence of H_2S had been a recurring problem at this plant. During the last stages of plant construction, a worker died in the main sewer that enters the plant; sewer gas was listed as the probable cause of death.

A second factor was the ventilation system in the mezzanine, bar screen, and wet-well areas. This system was designed to keep the entire area under positive pressure so the exhausted air could be filtered to avoid community odor problems. When the ventilation system failed during a power outage, an H_2S level of 200 ppm was measured at the doorway to the

Hydrogen Sulfide – Continued

mezzanine area before the ventilation system was turned back on. Based on this figure, NIOSH investigators estimated the level of H_2S to be in the 1,000-2,000 ppm range in the area where the incident occurred. This is considerably above the value of 300 ppm that NIOSH considers immediately dangerous (*5*). As an experiment, NIOSH investigators and plant maintenance personnel reversed the fan in an effort to correct the airflow to the wet-well area; the H_2S concentration dropped from 125 ppm to 7 ppm in 2 hours. The NIOSH investigators recommended that all ventilation systems throughout the plant be evaluated and deficiencies be corrected.

A third probable contribution to the death was the lack of specific procedures to ensure safe entry into areas containing potentially hazardous gases. The implementation of carefully written and enforced procedures can help prevent the same potentially hazardous conditions that existed for this fatality.

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International Notes

Quarantine Measures

Six countries have revised their vaccination requirements, effective August 1, 1986. The following changes should be made in the booklet "Health Information for International Travel, 1986."

ANGOLA

Delete information on cholera on page 15. Change yellow fever code to II > 1 yr. on page 15. Delete Angola from the yellow fever section under Requirements for Direct Travel from the United States on page 13.

BARBADOS

Delete yellow fever country list on pages 18 and 19. Code III > 1 yr. remains valid.

GABON

Change yellow fever code to I > 1 yr. on page 29. Add Gabon to the yellow fever section under Requirements for Direct Travel from the United States on page 13.

MALI

Delete information on cholera on page 40.

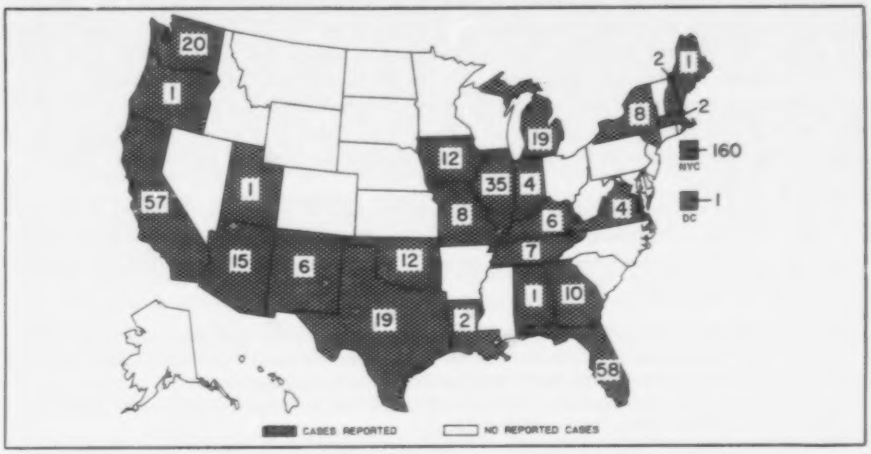
NIGERIA

Delete information on cholera on page 44. Change yellow fever code to II > 1 yr. on page 44. Delete Nigeria from the yellow fever section under Requirements for Direct Travel from the United States on page 13.

TANZANIA, UNITED REPUBLIC OF

Delete information on cholera pages 13 and 53.

FIGURE I. Reported measles cases — United States, weeks 29-30, 1986



The *Morbidity and Mortality Weekly Report* is prepared by the Centers for Disease Control, Atlanta, Georgia, and available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238.

The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report,* Centers for Disease Control, Atlanta, Georgia 30333.

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Use of Death Certificates for Surveillance of Work-Related Illnesses — New Hampshire

To conduct surveillance for occupationally related health events, some state health departments have made innovative use of the limited data sources available to them locally (e.g., death certificates, workers' compensation claims, hospital discharge files) (*1*). The New Hampshire Division of Public Health Services (NHDPHS) of the State Department of Health and Human Services recently completed a study of death certificates in the state for 1963-1983 to epidemiologically characterize deaths due to mesothelioma and the pneumoconioses (silicosis, asbestosis, and anthracosis).

Death certificates were provided by New Hampshire's Bureau of Vital Health Statistics for 1963-1983 and were reviewed to obtain information on all deaths for which mesothelioma or a pneumoconiosis was recorded as the underlying or contributing cause of death. Information was abstracted from these certificates on sex, occupation, age at death, year of death, and usual place of residence. Data were analyzed to estimate the prevalence of these conditions, to determine the demographic characteristics of the cases, and to describe the geographic distribution of these conditions within New Hampshire (Figure 1).

Mesothelioma was recorded on 13 death certificates, nine for males (average age at death: 65 years) and four for females (average age at death: 69 years). In eight cases, the mesotheliomas were pleural in origin; five occurred in the abdominal cavity. The average length of survival following diagnosis was 10 months for males and 4 months for females. For seven of the cases, occupational exposure to asbestos was likely to have occurred. The remaining cases occurred among persons whose primary occupations at time of death were recorded as housewives, a lawyer, and an insurance broker.

Silicosis was recorded as a cause of death on 22 death certificates (average age at death: 70 years); three of these were silicotuberculosis. All cases involved males employed in industries associated with a potential for exposure to silica dust.

Asbestosis was listed for nine deaths as the cause of death (average age at death: 74 years). The eight male workers were employed in trades with a potential for asbestos exposure; the female was identified as a housewife. Deaths associated with asbestos exposure (both mesothelioma and asbestosis) were clustered in geographic areas where the industrial use of asbestos is known to have occurred (Figure 1).

Anthracosis (i.e., coal workers' pneumoconiosis) was recorded as the cause of death for a coal miner and a crane operator. The death of one worker who was involved in the manufacture of woven belts was attributed to byssinosis (not usually classified as a pneumoconiosis), and three deaths were listed as "pneumoconiosis-unspecified."

An additional 218 death certificates indicated pulmonary fibrosis or interstitial fibrosis as a cause of death. Of these, 39 involved occupations with a high probability of past exposure to

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Work-Related Illnesses — Continued

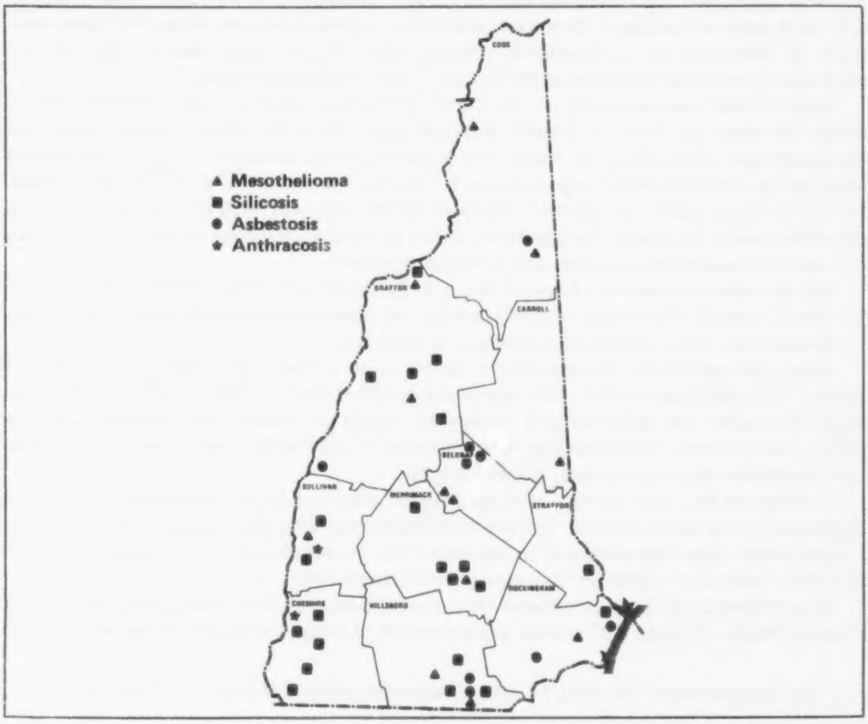
silica or asbestos (e.g., construction, shipbuilding, and manufacturing). Of the remainder, 15 cases involved work in the shoe or leather trades; 11 worked with wood or paper products; six were farmers; four worked with textiles; and four were painters; the remainder were unspecified.

Reported by E Schwartz, MD, State Epidemiologist, and staff, New Hampshire State Dept of Health and Human Svcs; National Institute for Occupational Safety and Health, CDC.

Editorial Note: NHDPHS elected to study deaths associated with mesothelioma and the pneumoconioses because these diseases are considered sentinel health events (occupational) (SHE[O]). A sentinel health event is defined as a preventable disease, disability, or untimely death, the occurrence of which serves as a warning signal that the quality of preventive activities and/or therapeutic medical care may need to be improved (*2*); a SHE(O) is an occupationally related sentinel disease. Mesothelioma and the pneumoconioses were specifically targeted for this study because: (1) the relationship is clearly established between these health conditions and exposure to dusts (e.g., asbestos, silica, coal) encountered in the workplace or general environment; and (2) recognition of a single case of these diseases justifies a careful search for other cases and raises important questions about their occurrence and the prevention of additional cases.

Mesothelioma is a tumor arising from the pleura or the peritoneum. A strong relationship has been established between the occurrence of mesothelioma and previous exposure to asbestos dust (*3*) among exposed workers, family contacts of asbestos-exposed workers, and

FIGURE 1. Death-certificate surveillance of selected work-related mortality — New Hampshire, 1963-1983



Work-Related Illnesses — Continued

persons incidentally exposed to airborne asbestos at work or from waste dumps, factories, construction sites, and automobile- or truck-brake linings. As with most chemically induced cancers, the latency period between the time of first exposure to asbestos and the clinical detection of mesothelioma is usually 20 years or more.

The pneumoconioses result from the inhalation and accumulation of dust in the lungs or from the reaction of the tissues to its presence (*4*). Although the inhalation of house dusts and most other dusts does not result in pneumoconiosis, the inhalation over long periods of time of silica, asbestos, and coal dust may result in pulmonary fibrosis. A pneumoconiosis may be suspected from the patient's occupational and medical history and is often diagnosed with the aid of chest radiographs and pulmonary-function tests.

For several reasons, this death certificate-based survey may have underestimated the magnitude of mortality associated with exposure to fibrogenic dusts. First, the long latency period usually associated with these diseases often hinders determination of their relationship to work. Accurate diagnosis requires that physicians consider the possible occupational or environmental origins of disease. A practical and systematic approach to such diagnoses has been devised (*5*). A key element is the occupational history, which should include details on various jobs held and information on chemical or physical exposures encountered during a patient's working lifetime (*6*). Second, because the clinical presentations of occupationally and nonoccupationally related diseases are often similar, it is not always clear whether certain diseases result from occupational exposure. Third, other potentially asbestos-related cancers (e.g., oropharyngeal, gastrointestinal, lung, or renal cancer) were not included in this survey. Fourth, because death certificates provide limited information on the decedent's occupational history, associations with specific occupations could not be determined for many of the cases. For example, approximately 10% of the death certificates listing pulmonary fibrosis or interstitial fibrosis as a cause of death also list occupation as "retired" or "at home." Fifth, based on the limited clinical and historic information on the death certificates, it is difficult to determine which cases of pulmonary fibrosis or interstitial fibrosis should be diagnosed as pneumoconioses. For the purposes of epidemiologic analysis, a pneumoconiosis was assumed if occupational information indicated exposure to asbestos or silica.

Investigation and follow-up of these sentinel health events may provide improved opportunity for prevention. Effective prevention of future pneumoconiosis and mesothelioma cases depends on: (1) recognition of work places where hazardous exposures are now occurring; (2) substitution of less hazardous substances for hazardous materials; (3) use of appropriate engineering controls, including local exhaust ventilation; (4) implementation of safe work practices; and (5) use of personal protective devices, such as respirators.

Effective surveillance and prevention depend on prompt reporting of pertinent diagnoses by those in the health-care community. Although in New Hampshire practicing health-care providers are required to report all cases of occupationally related disease to the state's Division of Public Health Services (*7*), relatively few cases are ever actually reported. It is essential, therefore, that health-care providers consider the potential occupational or environmental relatedness of diseases and report these diseases in conformance with reporting requirements.

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Work-Related Illnesses — Continued

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Human T-Lymphotropic Virus Type III/ Lymphadenopathy-Associated Virus:

Agent Summary Statement

INTRODUCTION

In March 1984, CDC and the National Institutes of Health (NIH), in consultation with scientists, physicians, and public health workers in academia, industry, and government, published a manual entitled *Biosafety in Microbiological and Biomedical Laboratories* ("biosafety manual")* (*1*). The manual describes combinations of standard and special microbiologic practices, safety equipment, and facilities recommended for working with infectious agents in various laboratory settings. The recommendations are advisory and provide a voluntary code of safety practices.

A section of this manual is devoted to a number of specific "agent summary statements" consisting of brief descriptions of documented or anecdotal laboratory-associated infections, the nature of the laboratory hazards, and recommended precautions to be taken in handling and working with certain infectious agents. Contributors to the manual recognized that new agents would be discovered from time to time and recommended that a summary statement for each new agent be developed and published in the *MMWR*. The summary statement for human T-lymphotropic virus type III/lymphodenopathy-associated virus (HTLV-III/LAV)† follows. All laboratory directors are requested to put a copy of this summary in each of their copies of the biosafety manual and bring it to the attention of laboratory personnel. The recommendations in the summary statement were compiled from published scientific reports and are consistent with the published guidelines for health-care workers (*2-4*).

AGENT SUMMARY STATEMENT: HTLV-III/LAV

As of August 15, 1986, no cases of acquired immunodeficiency syndrome (AIDS) that meet the CDC case definition and can be attributed to an inadvertent laboratory exposure have been reported in laboratory workers (*5*). One laboratory worker (*7*) was included among the health-care workers who have had HTLV-III/LAV antibody detected in their serum after sustaining a needlestick injury (*2,3,6-10*), but the source of the infection could not be established. Persons who are infected with HTLV-III/LAV may be asymptomatic, may have AIDS-related complex, or may manifest symptoms of overt AIDS (*11*).

In 1985, two different reagent production laboratories reported that several laboratory workers may have been inadvertently exposed to an aerosol of concentrated HTLV-III/LAV; one worker was cut by a piece of glass from a broken carboy that contained HTLV-III/LAV-infected cells and culture fluid. None of the potentially exposed persons had shown evidence of seroconversion after 6 months in one incident and 12 months in the other as a result of these occupational exposures.

Other reports dealing with HTLV-III/LAV infection in health-care personnel, including

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*Available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, Stock #01702300167-1, Price: $4.00; and from National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, Stock #PB84-206879, Price: $6.00.

†The Human Retrovirus Subcommittee of the International Committee on the Taxonomy of Viruses has proposed the name human immunodeficiency virus (HIV) for these viruses (Science 1986;232:697).

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laboratory workers (*3,4,6,8-10*), indicate that the risk of bloodborne transmission from inadvertent exposure is considerably less for HTLV-III/LAV than for hepatitis B virus infection. These reports illustrate the need for complete evaluation by a physician and serologic testing of each laboratory worker definitely or possibly exposed to HTLV-III/LAV in a laboratory setting. It is recommended that the Public Health Service guidelines for health-care workers be followed in these instances (*2,3*).

Laboratory Hazards

HTLV-III/LAV has been isolated from blood, semen, saliva, tears, urine, cerebrospinal fluid, brain tissue, and cervical secretions and is likely to be present in other body fluids, secretions, and tissues of infected humans or experimentally infected nonhuman primates. Percutaneous or parenteral inoculation and direct contact of cuts, scratches, abrasions, or mucosal surfaces with suspensions of virus or specimens containing live virus are considered potential routes of infection. Possible transmission of infection via the parenteral route can occur through self-inoculation with needles, broken glass, or other sharp objects that contain HTLV-III/LAV. Spillage is a possible means of exposure and infection, especially spills accompanied by spraying or splashing of infected cell cultures, viral concentrates, and other infectious materials that may come into direct contact with abraded skin or mucous membranes of the eyes, nose, or mouth; however, there are no data documenting or suggesting that transmission of HTLV-III/LAV has occurred in this manner. Ingestion and inhalation have not been documented as modes of transmission of the virus.

Recommended Precautions

1. Biosafety Level (BSL) 2 standards and special practices, containment equipment, and facilities as described in the CDC-NIH biosafety manual are recommended for activities involving clinical specimens, body fluids, or tissues from humans or laboratory animals that may contain HTLV-III/LAV. *These are the same practices recommended for all clinical specimens.* Emphasis is placed on the following practices, which are included in the manual (*1*):
    a. Use of syringes, needles and other sharp instruments should be avoided if possible. Used needles and cutting instruments should be discarded into a puncture-resistant container with a lid. Needles should *not* be resheathed, purposefully bent, broken, removed from disposable syringes, or otherwise manipulated by hand.
    b. Gloves should be worn by all personnel engaged in activities that may involve skin contact with potentially infectious fluids, tissues, or cultures and by laboratory workers with dermatitis or other lesions on the hands who may have direct or indirect contact with potentially infectious materials. Handwashing with soap and water should be a routine practice immediately after direct contact with potentially infectious materials and on completion of work, even when gloves are worn.
    c. Generation of aerosols, splashes, and spills of potentially infectious materials should be avoided in procedures involving body fluids or tissues, during necropsy of cadavers, and in similar procedures on animals experimentally infected with HTLV-III/LAV. Laboratory workers should use a biological safety cabinet when propagating the virus to further reduce the risk of exposure. Although the major precautions are listed here, the CDC-NIH biosafety manual contains additional related precautions (see pages 11-13 for BSL 2 and pages 14-17 [*1*] for BSL 3 when large volumes or concentrates of HTLV-III/LAV are involved). In all instances, the laboratory director is responsible for assessing the biosafety level to be used.
    d. Human serum from any source that is used as a control or reagent in a test procedure should be handled at BSL 2 (see pages 11-13 [*1*]). Appended to this Agent Summary Statement is a statement (Addendum 1) issued by CDC on the use of all human control or reagent sera shipped to other laboratories. The Food and Drug Administration re-

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quires that manufacturers of human serum reagents use a similarly worded statement.

e. Animal BSL 2 practices, containment equipment, and facilities are recommended for activities involving nonhuman primates experimentally infected with HTLV-III/LAV. Laboratory coats, gowns, or uniforms should be worn by laboratory workers, as is customary for other BSL 2 or 3 practices, depending on the nature of the work, concentration of the virus, and volume of material being handled. Because many animals bite, and some throw feces, urine, or expectorate at humans, animal-care personnel must wear coats, protective gloves, coveralls or uniforms, and face shields as appropriate to protect the skin and mucous membranes of the eyes, nose, and mouth from potential exposure to these substances when working with animals likely to manifest such behavior.

2. Activities such as growing research-laboratory-scale amounts of HTLV-III/LAV or related viruses or virus-producing cell lines, working with concentrated virus preparations, or conducting procedures that may produce droplets or aerosols should be performed in a BSL 2 facility with the additional practices and containment equipment recommended for BSL 3 (*12*).
3. Activities involving industrial-scale, large-volume, or high-concentration production and manipulation of HTLV-III/LAV are to be conducted with BSL 3 requirements (*12*).

(Continued on page 547)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	34th Week Ending			Cumulative, 34th Week Ending		
	Aug. 23, 1986	Aug. 24, 1985	Median 1981-1985	Aug. 23, 1986	Aug. 24, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	176	138	N	8,113	4,955	N
Aseptic meningitis	545	400	400	5,116	4,641	4,641
Encephalitis: Primary (arthropod-borne & unspec.)	39	40	43	622	696	748
Post-infectious	-	2	1	68	89	65
Gonorrhea: Civilian	17,513	18,254	19,263	563,987	568,921	581,109
Military	368	498	431	10,813	13,794	15,853
Hepatitis: Type A	375	450	429	13,995	14,095	14,095
Type B	524	527	480	16,728	16,485	15,407
Non A, Non B	64	90	N	2,299	2,684	N
Unspecified	57	110	129	2,994	3,715	4,662
Legionellosis	15	13	N	412	464	N
Leprosy	6	7	2	175	257	163
Malaria	22	21	21	642	662	662
Measles: Total*	64	32	17	5,186	2,332	2,215
Indigenous	64	27	N	4,951	1,957	N
Imported	-	5	N	235	375	N
Meningococcal infections: Total	22	37	33	1,747	1,669	1,969
Civilian	22	37	33	1,745	1,663	1,965
Military	-	-	-	2	6	9
Mumps	43	23	23	3,259	2,140	2,382
Pertussis	97	158	53	1,926	1,672	1,344
Rubella (German measles)	6	14	11	385	496	751
Syphilis (Primary & Secondary): Civilian	806	526	603	17,106	17,353	19,654
Military	-	2	5	110	118	240
Toxic Shock syndrome	7	6	N	233	258	N
Tuberculosis	476	446	502	14,077	13,746	15,149
Tularemia	10	5	7	89	115	156
Typhoid fever	5	6	13	180	223	257
Typhus fever, tick-borne (RMSF)	39	20	25	525	451	743
Rabies, animal	104	121	149	3,601	3,477	4,195

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis	23
Botulism: Foodborne	6	Plague	4
Infant (N.Y. City 1, Utah 3, Calif. 2)	36	Poliomyelitis, Paralytic	-
Other	1	Psittacosis (Mo. 1, Calif. 1)	69
Brucellosis (Fla. 1, Tex. 1, Colo. 1, Calif. 1)	51	Rabies, human	-
Cholera	-	Tetanus (Maine 1, Ohio 1, Mo. 1, Calif. 2)	43
Congenital rubella syndrome	2	Trichinosis (Ohio 1)	21
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine) (N.Y. City 1, Tex. 1)	34
Diphtheria	-		

*There were no cases of internationally imported measles reported for this week.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending August 23, 1986 and August 24, 1985 (34th Week)

Reporting Area	AIDS	Aseptic Menin-gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel-losis	Leprosy
			Primary	Post-in-fectious			A	B	NA,NB	Unspeci-fied		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	8,113	545	622	68	563,987	568,921	375	524	64	57	15	175
NEW ENGLAND	355	25	17	3	14,152	15,040	10	41	-	5	-	6
Maine	13	2	-	-	590	727	-	2	-	-	-	-
N H	8	3	2	-	353	376	1	-	-	-	-	-
Vt	3	-	2	2	165	203	-	2	-	-	-	-
Mass	187	6	4	-	5,757	5,749	3	28	-	5	-	6
R I	21	7	-	-	1,125	1,193	2	2	-	-	-	-
Conn	123	7	9	1	6,162	6,792	4	7	-	-	-	-
MID ATLANTIC	3,112	31	68	6	95,430	82,762	9	27	1	13	9	12
Upstate N Y	296	4	26	4	11,291	11,054	3	13	1	-	-	1
N Y City	2,107	6	15	-	55,842	41,576	3	4	-	13	-	10
N J	492	21	10	-	12,446	12,467	3	10	-	-	9	-
Pa	217	U	17	2	15,851	17,665	U	U	U	U	U	1
E N CENTRAL	489	109	177	10	73,788	76,449	21	35	8	4	1	4
Ohio	100	38	56	2	19,317	19,586	9	14	3	-	-	-
Ind	48	10	39	3	7,876	7,704	2	4	-	2	-	-
Ill	238	25	38	4	20,880	20,385	5	5	2	1	-	3
Mich	78	36	34	1	22,947	21,425	5	12	3	1	1	1
Wis	25	-	10	-	2,768	7,349	-	-	-	-	-	-
W N CENTRAL	160	26	29	8	24,294	26,399	8	21	3	-	1	2
Minn	60	5	12	-	3,436	3,867	1	5	-	-	-	1
Iowa	11	3	9	-	2,444	2,855	1	4	1	-	-	-
Mo	56	14	-	-	12,282	12,717	3	10	-	-	-	-
N Dak	2	-	-	-	214	181	-	-	-	-	-	-
S Dak	1	-	7	-	492	491	-	-	-	-	-	-
Nebr	6	-	-	1	1,824	2,255	3	2	1	-	1	-
Kans	24	4	1	7	3,602	4,033	-	-	1	-	-	1
S ATLANTIC	1,120	69	82	23	147,114	146,239	32	98	13	4	1	2
Del	17	-	5	-	2,345	2,691	1	-	-	-	-	-
Md	123	11	25	1	17,555	19,010	2	17	2	-	-	-
D C	141	3	-	1	10,839	9,867	-	1	1	-	-	-
Va	106	2	27	1	11,942	12,201	-	4	1	1	1	1
W Va	6	-	12	-	1,451	1,644	-	1	-	-	-	-
N C	44	20	11	1	22,717	22,046	2	23	2	2	-	-
S C	24	-	-	-	12,807	14,025	3	9	-	-	-	-
Ga	170	8	-	1	24,802	29,631	3	10	1	-	-	-
Fla	489	25	2	18	42,656	35,124	21	33	6	1	-	1
E S CENTRAL	103	30	40	3	45,980	48,307	6	45	3	2	-	1
Ky	21	15	19	1	5,055	5,446	2	9	-	-	-	-
Tenn	53	4	3	1	17,753	18,471	1	16	1	2	-	-
Ala	19	11	17	1	13,156	14,761	3	20	2	-	-	1
Miss	10	-	1	-	10,016	9,629	-	-	-	-	-	-
W S CENTRAL	488	206	81	6	67,952	71,757	100	98	16	21	2	16
Ark	21	-	-	2	6,204	7,021	6	3	2	-	-	-
La	108	19	3	-	12,078	14,154	18	32	3	1	-	1
Okla	27	16	16	-	7,559	7,725	15	9	1	3	2	-
Tex	332	171	62	4	42,111	42,857	61	54	10	17	-	15
MOUNTAIN	203	3	22	1	16,507	17,747	24	16	3	1	-	11
Mont	4	-	-	1	468	492	1	-	-	-	-	-
Idaho	2	1	-	-	536	543	2	-	-	-	-	-
Wyo	4	-	2	-	362	420	-	-	-	-	-	-
Colo	96	1	3	-	4,193	5,230	1	6	1	1	-	3
N Mex	11	-	3	-	1,648	2,034	15	3	2	-	-	-
Ariz	50	-	8	-	5,364	5,205	-	-	-	-	-	5
Utah	12	-	5	-	713	778	2	2	-	-	-	1
Nev	24	1	1	-	3,223	3,045	3	5	-	-	-	2
PACIFIC	2,083	46	106	8	78,770	84,221	165	143	17	7	1	121
Wash	93	4	11	-	5,918	6,315	30	18	1	3	-	4
Oreg	44	-	-	-	3,273	4,144	29	19	4	-	-	-
Calif	1,906	36	92	8	66,897	70,673	105	106	12	4	1	84
Alaska	10	1	3	-	1,813	1,901	1	-	-	-	-	-
Hawaii	30	5	-	-	869	1,188	-	-	-	-	-	23
Guam	-	-	-	-	122	131	-	-	-	-	-	1
P R	76	4	4	-	1,539	2,262	3	9	-	2	-	7
V I	3	U	-	-	139	322	U	U	U	U	U	-
Pac Trust Terr	-	-	-	-	285	574	5	-	-	1	-	33
Amer Samoa	-	-	-	-	30	-	-	-	-	-	-	2

N Not notifiable U Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 23, 1986 and August 24, 1985 (34th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	642	64	4,951	-	235	2,332	1,747	43	3,259	97	1,926	1,672	6	385	496
NEW ENGLAND	33	-	75	-	8	123	124	-	53	2	105	83	-	9	12
Maine	1	-	10	-	-	1	23	-	-	-	2	5	-	-	-
N H	2	-	39	-	-	-	6	-	13	1	50	31	-	1	2
Vt	1	-	-	-	-	-	15	-	3	-	3	3	-	1	-
Mass	17	-	23	-	6	115	29	-	9	-	28	25	-	4	6
R I	5	-	2	-	-	-	16	-	9	-	4	12	-	2	-
Conn	7	-	1	-	2	7	35	-	19	1	18	7	-	1	4
MID ATLANTIC	90	47	1,606	-	21	197	273	-	134	4	133	104	-	31	205
Upstate N Y	30	2	64	-	19	82	93	-	53	4	86	61	-	23	17
N Y City	25	45	615	-	2	60	57	-	5	-	3	9	-	5	164
N J	18	-	905	-	-	27	29	-	36	-	11	3	-	3	11
Pa	17	U	22	U	-	28	94	U	40	U	33	31	U	-	13
E N CENTRAL	42	9	965	-	16	513	238	28	2,218	5	249	343	1	35	28
Ohio	12	-	-	-	10	54	94	1	100	5	108	32	-	1	-
Ind	2	6	17	-	-	57	19	-	31	-	22	70	-	-	1
Ill	14	-	631	-	3	289	66	27	1,644	-	28	36	-	24	12
Mich	13	3	56	-	-	54	53	-	248	-	24	30	1	8	14
Wis	1	-	261	-	3	59	6	-	195	-	67	175	-	2	1
W N CENTRAL	22	1	322	-	17	11	84	-	82	14	163	94	-	10	19
Minn	5	-	45	-	4	6	17	-	1	-	43	28	-	-	2
Iowa	1	1	133	-	1	-	11	-	21	-	13	5	-	1	1
Mo	10	-	25	-	6	2	28	-	15	-	12	24	-	1	7
N Dak	-	-	25	-	1	2	-	-	3	-	4	9	-	1	2
S Dak	-	-	-	-	-	-	4	-	1	-	14	1	-	-	-
Nebr	4	-	-	-	-	-	9	-	-	-	1	4	-	-	-
Kans	2	-	94	-	5	1	15	-	41	14	76	23	-	7	7
S ATLANTIC	82	1	505	-	53	273	322	2	154	10	588	377	-	10	50
Del	1	-	1	-	-	-	2	-	-	-	222	-	-	-	1
Md	12	-	22	-	9	88	44	-	15	-	136	226	-	-	6
D C	1	-	-	-	2	8	4	-	-	-	-	-	-	-	-
Va	21	-	35	-	24	25	53	2	34	-	30	8	-	-	2
W Va	4	-	2	-	-	33	3	-	38	3	23	2	-	-	9
N C	4	-	2	-	1	9	56	-	14	-	41	17	-	-	-
S C	6	-	274	-	-	3	29	-	12	-	13	1	-	-	3
Ga	7	-	79	-	14	8	49	-	14	7	102	76	-	-	-
Fla	26	1	90	-	3	99	82	-	27	-	21	47	-	10	29
E S CENTRAL	16	-	56	-	8	4	97	1	25	5	42	18	-	4	2
Ky	4	-	-	-	6	2	24	-	6	-	5	3	-	4	2
Tenn	1	-	54	-	1	1	35	1	16	3	15	6	-	-	-
Ala	7	-	-	-	1	-	27	-	2	2	22	6	-	-	-
Miss	4	-	2	-	-	1	11	-	1	-	-	3	-	-	-
W S CENTRAL	63	-	585	-	34	423	153	4	151	30	165	249	-	55	32
Ark	-	-	276	-	2	-	22	-	7	3	11	12	-	-	1
La	8	-	4	-	-	42	22	-	2	3	11	10	-	-	-
Okla	9	-	37	-	2	1	21	N	N	-	89	120	-	-	1
Tex	46	-	268	-	30	380	88	4	142	24	54	107	-	55	30
MOUNTAIN	26	1	296	-	26	526	88	-	203	5	189	114	-	21	5
Mont	-	-	-	-	8	137	8	-	5	2	10	7	-	2	-
Idaho	1	-	1	-	-	135	3	-	6	-	33	7	-	-	1
Wyo	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-
Colo	8	-	2	-	5	13	13	-	11	1	52	32	-	1	-
N Mex	4	-	32	-	7	5	8	N	N	-	17	11	-	-	2
Ariz	8	-	252	-	6	236	19	-	167	-	46	27	-	2	1
Utah	2	1	8	-	-	-	9	-	10	2	27	30	-	13	-
Nev	3	-	1	-	-	-	26	-	4	-	3	-	-	3	1
PACIFIC	268	5	541	-	52	262	368	8	239	22	292	290	5	210	143
Wash	21	-	158	-	25	42	54	-	7	1	82	52	-	14	11
Oreg	15	1	4	-	4	3	26	N	N	-	10	29	-	1	1
Calif	231	3	358	-	22	197	275	8	209	21	190	168	5	191	82
Alaska	-	-	-	-	-	-	11	-	6	-	2	29	-	-	1
Hawaii	1	1	21	-	1	20	2	-	17	-	8	12	-	4	48
Guam	1	-	4	-	1	11	-	-	4	-	-	-	-	3	2
P R	4	-	33	-	-	60	2	2	23	1	13	10	2	60	25
V I	-	U	-	U	-	10	-	U	13	U	-	-	U	-	-
Pac Trust Terr	-	-	-	-	-	-	1	-	7	-	-	-	-	2	-
Amer Samoa	-	-	2	-	-	-	-	-	4	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 23, 1986 and August 24, 1985 (34th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tularemia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	17,106	17,353	7	14,077	13,746	89	180	525	3,601
NEW ENGLAND	308	352	-	451	467	1	11	9	3
Maine	15	8	-	32	35	-	-	-	-
N H	10	9	-	18	15	-	-	1	-
Vt	7	5	-	13	4	-	-	-	-
Mass	165	175	-	228	277	1	9	2	-
R I	16	12	-	35	35	-	-	3	1
Conn	95	142	-	125	101	-	2	3	2
MID ATLANTIC	2,403	2,293	-	2,863	2,525	1	14	20	412
Upstate N Y	104	161	-	416	438	-	2	11	54
N Y City	1,383	1,425	-	1,498	1,225	-	6	5	-
N J	433	447	-	497	349	1	5	1	15
Pa	483	260	U	452	513	-	1	3	343
E N CENTRAL	666	719	3	1,667	1,681	-	13	54	90
Ohio	85	100	1	300	308	-	2	52	9
Ind	78	65	-	178	206	-	2	-	14
Ill	351	362	-	733	738	-	2	1	26
Mich	117	148	2	378	325	-	5	1	20
Wis	35	44	-	78	106	-	2	-	21
W N CENTRAL	147	152	-	402	373	27	7	35	584
Minn	27	31	-	101	79	-	1	1	82
Iowa	6	17	-	33	43	1	-	1	130
Mo	80	74	-	199	177	22	5	18	63
N Dak	3	2	-	6	6	-	-	1	130
S Dak	3	5	-	16	18	2	-	6	115
Nebr	11	7	-	7	13	1	-	4	22
Kans	17	16	-	40	37	1	1	4	42
S ATLANTIC	5,384	5,119	1	2,710	2,797	8	24	246	863
Del	35	25	-	27	27	-	1	1	-
Md	291	309	-	209	256	2	6	28	432
D C	204	234	-	87	105	-	2	-	26
Va	247	195	1	225	245	2	5	43	119
W Va	18	15	-	74	74	-	3	7	27
N C	334	437	-	372	308	1	3	87	7
S C	447	539	-	358	340	-	-	58	39
Ga	985	888	-	408	454	3	-	21	132
Fla	2,823	2,477	-	950	928	-	4	1	81
E S CENTRAL	1,161	1,282	-	1,206	1,200	8	2	63	236
Ky	53	42	-	287	289	3	-	16	63
Tenn	402	398	-	352	359	4	1	25	97
Ala	386	422	-	380	364	1	-	14	74
Miss	330	420	-	187	208	-	1	8	2
W S CENTRAL	3,425	3,988	2	1,814	1,681	39	15	89	526
Ark	165	212	-	237	181	28	-	4	119
La	570	687	-	315	221	1	1	-	15
Okla	87	116	2	166	176	6	1	74	45
Tex	2,603	2,971	-	1,096	1,103	4	13	11	347
MOUNTAIN	388	451	-	334	353	4	8	8	505
Mont	6	3	-	20	46	1	1	4	173
Idaho	9	4	-	14	15	-	-	1	2
Wyo	1	6	-	-	5	-	-	3	221
Colo	98	112	-	28	43	-	1	-	15
N Mex	46	81	-	67	65	1	-	-	6
Ariz	158	219	-	160	147	-	3	-	79
Utah	12	5	-	28	10	1	2	-	3
Nev	60	21	-	17	22	1	1	-	6
PACIFIC	3,234	2,999	1	2,630	2,669	1	86	1	382
Wash	99	80	-	123	150	-	3	-	5
Oreg	75	60	-	92	85	-	-	-	-
Calif	3,033	2,810	1	2,250	2,241	-	79	1	369
Alaska	2	2	-	37	68	1	1	-	8
Hawaii	25	47	-	128	125	-	3	-	-
Guam	1	2	-	34	31	-	-	-	-
P R	576	536	-	210	233	-	4	-	34
V I	-	1	U	1	1	-	-	-	-
Pac Trust Terr	170	80	-	44	38	-	42	-	-
Amer Samoa	-	-	-	4	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending August 23, 1986 (34th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	597	397	126	45	10	17	40
Boston, Mass	161	91	43	15	5	6	18
Bridgeport, Conn	56	37	14	5	-	-	2
Cambridge, Mass	21	15	4	2	-	-	1
Fall River, Mass	22	17	5	-	-	-	-
Hartford, Conn	56	35	12	6	-	3	3
Lowell, Mass	23	16	6	1	-	-	2
Lynn, Mass	10	10	-	-	-	-	-
New Bedford, Mass	22	15	3	3	-	1	-
New Haven, Conn §	42	28	9	4	1	-	2
Providence, R.I.	53	34	9	5	-	5	5
Somerville, Mass	8	8	-	-	-	-	1
Springfield, Mass	27	21	3	-	1	1	-
Waterbury, Conn	33	25	3	3	2	-	2
Worcester, Mass	63	45	15	1	1	1	4
MID ATLANTIC	2,611	1,658	549	250	73	78	102
Albany, N.Y.	55	32	14	6	2	1	2
Allentown, Pa	41	31	10	-	-	-	-
Buffalo, N.Y.	112	80	22	6	4	-	5
Camden, N.J.	49	29	13	2	3	2	-
Elizabeth, N.J.	29	19	7	3	-	-	-
Erie, Pa †	36	20	12	-	1	3	1
Jersey City, N.J.	41	19	10	7	2	3	-
N.Y. City, N.Y.	1,339	817	276	174	33	39	51
Newark, N.J.	71	39	11	7	5	6	3
Paterson, N.J.	37	25	8	4	-	-	2
Philadelphia, Pa	393	244	94	29	11	15	18
Pittsburgh, Pa †	62	39	16	3	2	2	3
Reading, Pa	24	22	1	-	1	-	2
Rochester, N.Y.	105	78	19	3	3	2	7
Schenectady, N.Y.	32	27	2	1	1	1	1
Scranton, Pa †	22	17	3	-	2	-	-
Syracuse, N.Y.	87	63	17	2	2	3	2
Trenton, N.J.	28	17	7	3	-	1	1
Utica, N.Y.	19	17	1	-	1	-	1
Yonkers, N.Y.	29	23	6	-	-	-	3
E.N. CENTRAL	2,294	1,477	482	196	65	74	89
Akron, Ohio	43	27	9	6	1	-	-
Canton, Ohio	26	17	7	1	-	1	5
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	195	141	36	8	7	3	18
Cleveland, Ohio	147	96	38	6	2	5	2
Columbus, Ohio	127	80	30	10	6	1	1
Dayton, Ohio	96	65	20	8	2	1	3
Detroit, Mich	262	146	55	46	10	5	9
Evansville, Ind	41	27	10	1	1	2	2
Fort Wayne, Ind	69	49	11	5	3	1	-
Gary, Ind	10	5	2	2	-	1	-
Grand Rapids, Mich	55	39	10	4	1	1	9
Indianapolis, Ind	172	97	47	12	9	7	1
Madison, Wis	55	35	8	6	4	2	6
Milwaukee, Wis	129	85	23	14	-	7	7
Peoria, Ill	53	35	8	4	3	3	4
Rockford, Ill	32	24	3	4	-	1	1
South Bend, Ind	51	36	8	2	3	2	3
Toledo, Ohio	117	73	27	8	3	6	2
Youngstown, Ohio	50	38	5	4	-	3	-
W.N. CENTRAL	671	449	147	36	24	15	24
Des Moines, Iowa	67	48	10	4	4	1	1
Duluth, Minn	29	18	7	2	1	1	1
Kansas City, Kans	48	31	13	3	1	-	2
Kansas City, Mo	134	92	34	4	2	2	6
Lincoln, Nebr	24	19	1	2	1	1	1
Minneapolis, Minn	48	25	14	6	2	1	2
Omaha, Nebr	69	44	16	2	5	2	1
St. Louis, Mo	146	102	33	5	2	4	3
St. Paul, Minn	55	37	9	5	2	2	2
Wichita, Kans	51	33	10	3	4	1	5
S. ATLANTIC	1,230	733	272	141	35	45	43
Atlanta, Ga	122	72	27	17	5	1	1
Baltimore, Md	182	118	39	22	1	2	3
Charlotte, N.C.	89	53	17	8	5	6	2
Jacksonville, Fla	102	61	20	15	3	3	7
Miami, Fla	84	43	20	19	1	1	7
Norfolk, Va	58	32	17	5	2	2	3
Richmond, Va	79	39	18	11	3	8	7
Savannah, Ga	36	24	6	3	2	1	1
St. Petersburg, Fla	104	86	13	2	1	2	5
Tampa, Fla	67	32	18	6	3	4	-
Washington, D.C.	283	162	69	32	5	15	7
Wilmington, Del	24	11	8	1	4	-	-
E.S. CENTRAL	720	461	144	75	28	12	25
Birmingham, Ala	116	71	23	15	4	3	2
Chattanooga, Tenn	47	33	7	7	-	-	5
Knoxville, Tenn	73	45	17	7	3	1	5
Louisville, Ky	85	61	12	7	2	3	6
Memphis, Tenn	159	97	39	13	10	-	3
Mobile, Ala	78	57	13	6	1	1	-
Montgomery, Ala	59	35	12	9	3	-	2
Nashville, Tenn	103	62	21	11	5	4	2
W.S. CENTRAL	1,301	741	293	145	68	54	52
Austin, Tex	53	34	8	6	2	3	6
Baton Rouge, La	37	27	6	2	-	2	3
Corpus Christi, Tex	20	13	3	2	2	-	1
Dallas, Tex	192	96	51	21	12	12	4
El Paso, Tex	53	27	16	3	4	3	3
Fort Worth, Tex	88	50	14	11	6	7	4
Houston, Tex	287	136	84	42	15	10	7
Little Rock, Ark	100	54	25	12	4	5	5
New Orleans, La	119	80	22	13	3	1	1
San Antonio, Tex	185	113	38	17	12	5	10
Shreveport, La	62	39	10	5	5	3	3
Tulsa, Okla	105	72	16	11	3	3	5
MOUNTAIN	605	372	127	60	21	22	25
Albuquerque, N.Mex	90	51	19	11	3	4	2
Colo. Springs, Colo	38	26	7	5	-	-	7
Denver, Colo	109	66	26	11	3	3	-
Las Vegas, Nev	81	47	22	9	2	-	3
Ogden, Utah	19	14	1	2	1	1	2
Phoenix, Ariz	125	71	30	9	8	7	4
Pueblo, Colo	17	15	1	1	-	-	-
Salt Lake City, Utah	39	20	6	7	2	4	1
Tucson, Ariz	87	62	15	5	2	3	6
PACIFIC	1,735	1,134	320	169	66	39	80
Berkeley, Calif	24	19	5	-	-	-	4
Fresno, Calif	64	42	11	7	1	3	4
Glendale, Calif	21	19	1	1	-	-	1
Honolulu, Hawaii	77	50	14	6	6	1	4
Long Beach, Calif	95	55	25	9	1	5	6
Los Angeles, Calif	455	294	87	46	17	7	21
Oakland, Calif	74	46	11	11	3	3	4
Pasadena, Calif	31	22	6	1	-	2	1
Portland, Oreg	120	78	24	13	4	1	-
Sacramento, Calif	121	80	25	7	4	5	5
San Diego, Calif	130	75	24	12	13	3	9
San Francisco, Calif	156	101	21	32	1	1	5
San Jose, Calif	149	94	35	10	7	3	9
Seattle, Wash	131	96	19	7	6	3	1
Spokane, Wash	48	36	5	4	3	-	2
Tacoma, Wash	39	27	7	3	-	2	4
TOTAL	11,764††	7,422	2,460	1,117	390	356	480

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§ Data not available. Figures are estimates based on average of past 4 weeks.

HTLV-III/LAV – Continued

4. All laboratory glassware, equipment, disposable materials, and wastes suspected or known to contain HTLV-III/LAV must be decontaminated, preferably in an autoclave, before washing, discarding, etc. Incineration of solid wastes may be used as an alternate method of disposal.
5. There is no evidence that laboratory clothing soiled with materials known or suspected to contain HTLV-III/LAV poses a transmission hazard, and the handling of such clothing is covered under BSL 2 practices. However, to be consistent with BSL 3 recommendations (*1*), when laboratory clothing becomes contaminated with HTLV-III/LAV preparations, it should be decontaminated before being laundered or discarded.
6. Work surfaces should be decontaminated at the end of each day on completion of procedures or when overtly contaminated. Many commonly used chemical disinfectants with such active ingredients as sodium hypochlorite, formaldehyde, glutaraldehyde, or phenols (*4,13-15*) can be used to decontaminate laboratory work surfaces; they can also be used to decontaminate some laboratory instruments, specific areas of contaminated laboratory clothing, and spills of infectious materials. Prompt decontamination of spills and other overt contamination should be standard practice.
7. The prudent and recommended approach to handling human serum known or suspected to contain HTLV-III/LAV is to use the same precautions that should be used routinely to prevent transmission of bloodborne infections, including hepatitis B (*16*). Available data on the effectiveness of heat to destroy HTLV-III/LAV suspected or known to be present in human serum are at variance because of variations in volume of serum, concentration of the virus, temperature, and duration of exposure to heat (*14,15,17*). Similarly, results of chemical analyses or antibody assays may vary when sera are heated before testing according to the analysis or assay being performed (*18-20*). However, there is agreement that testing heated serum for HTLV-III/LAV antibody by enzyme immunoassays often yields false-positive results (*21-23*).
8. No HTLV-III/LAV vaccine has been developed, and no drugs have been shown to be safe and effective for therapy. As part of an ongoing medical surveillance program for employees, all laboratory workers before being assigned to activities with a high potential for exposure should have a serum sample obtained and stored at -40 C (-40 F) for possible future testing. Subsequent serum samples should be obtained and stored in accordance with laboratory policy or following an inadvertent laboratory exposure involving materials described above. When indicated, these serum specimens should be tested by a qualified laboratory using currently recommended procedures for HTLV-III/LAV antibody. Furthermore, the physician requesting serologic testing of these serum specimens must first obtain informed consent from the laboratory worker and describe the confidentiality safeguards available to protect test results. The laboratory workers whose serum specimens are to be tested should understand how the test results are to be used, the implications of a positive or negative test result, and the limits, if any, of the confidentiality safeguards. An employee whose serum HTLV-III/LAV antibody test is reactive and whose subsequent tests and evaluation confirm the presence of HTLV-III/LAV infection should be counseled to follow the Public Health Service recommendations for preventing transmission (*24,25*).
9. In addition to HTLV-III/LAV, other primary, as well as opportunistic, pathogenic agents may be present in the body fluids and tissues of persons who are antibody positive or have AIDS-related complex or AIDS. Laboratory workers should follow accepted biosafety practices to ensure maximum protection against inadvertent laboratory infection with agents other than HTLV-III/LAV that may also be present in clinical specimens.

Reported by Div of Safety, National Institute of Allergy and Infectious Diseases, National Cancer Institute, National Institutes of Health; AIDS Program, Hospital Infections Program, Center for Infectious Diseases, Laboratory Program Office, Office of Biosafety, Office of the Director, CDC.

HTLV-III/LAV – Continued

ADDENDUM

CDC cautionary notice for all human serum samples used as controls or reagents:

WARNING: Because no test method can offer complete assurance that laboratory specimens do not contain HTLV-III/LAV, hepatitis B virus, or other infectious agents, this specimen(s) should be handled at the BSL 2 as recommended for any potentially infectious human serum or blood specimen in the CDC-NIH manual, *Biosafety in Microbiological and Biomedical Laboratories*, 1984, pages 11-3.

One or more of the following statements should be included with the above warning statement:

- This specimen is negative for hepatitis B surface antigen (HBsAg).
- This specimen is negative for antibody to HTLV-III/LAV.
- This specimen is positive for hepatitis B surface antigen (HBsAg).
- This specimen is positive for antibody to HTLV-III/LAV.
- This specimen has NOT been tested for hepatitis B surface antigen (HBsAg).
- This specimen has NOT been tested for antibody to HTLV-III/LAV.
- This specimen has been heated at 56 C (133 F) for 30 minutes (which will not inactivate HBsAg but will inactivate HTLV-III/LAV).

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HTLV-III/LAV – Continued

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Thrombotic Thrombocytopenic Purpura Associated with *Escherichia coli* O157:H7 — Washington

Since *Escherichia coli* was first associated with bloody diarrhea in 1982 (*1*), several well-documented cases of hemolytic-uremic syndrome (HUS) related to *E. coli* O157:H7 have been described among children and adults (*2,3*). Patients with thrombotic thrombocytopenic purpura (TTP) have clinical and pathologic features similar to patients with HUS. In contrast to HUS, however, gastrointestinal infections have not been strongly implicated in the pathogenesis of TTP (*4,5*). A patient who recently died in Seattle with a clinical and pathologic diagnosis of TTP had bloody diarrhea associated with *E. coli* O157:H7 infection for 1 week before the onset of her other symptoms. This patient's clinical course suggested that *E. coli* O157:H7 infection may have been related to the development of TTP.

In February 1986, a 53-year-old, previously healthy woman was admitted to a Seattle hospital with severe neurologic abnormalities, microangiopathic hemolytic anemia, thrombocytopenia, and renal failure. One week before admission, she had developed bloody diarrhea. There was no past history of bowel disease or travel. The patient had not eaten hamburger or shellfish within the preceding 2 weeks, and in the several days before onset of diarrhea, she had eaten the same foods as her husband who did not become ill. Three days after onset of diarrhea, a hematocrit was normal, and a stool examination for ova or parasites was negative. Cephalexin and metronidazole were prescribed. Her diarrhea continued, and hematuria developed. The day before admission, she became extremely lethargic. Following a generalized seizure while being evaluated in an emergency room, she was admitted.

On admission, the patient was intubated and comatose. Rectal temperature was 35.6 C (96.1 F); blood pressure, 180/100 mm Hg supine; heart rate, 66 beats per minute; and respiratory rate, 10/minute on the ventilator. Pupils were pinpoint and minimally reactive. Cranial nerve functions were intact, and the patient withdrew her extremities to noxious stimuli. The abdomen was soft without guarding and bowel sounds were hypoactive. Stool was guaiac positive. Laboratory data included a hematocrit of 41%, a leukocyte count of 29,200/mm^3 with a left shift, and a platelet count of 38,000/mm^3. A blood smear showed schistocytes, helmet cells, burr cells, and target cells consistent with a microangiopathic hemolytic anemia. The serum urea nitrogen was 48 mg/dl, and creatinine was 3.3 mg/dl. PT and PTT were normal, and the thrombin time was 22 seconds. Fibrinogen was 454 mg/dl, and fibrin degradation products were less than 40 μg/ml but greater than 10 μg/ml. A culture from a rectal swab obtained the day of admission yielded *E. coli* O157:H7.

TTP – Continued

TTP was diagnosed; plasmapheresis was begun after treatment with fresh frozen plasma, and she received corticosteroids, dipyridamole, and aspirin. Her neurologic status deteriorated rapidly during the first 24 hours after admission, and a computerized tomographic scan of her head showed diffuse cerebral edema. Despite aggressive therapy for increased intracranial pressure, she lost all cranial nerve and motor function and died 48 hours after admission. An autopsy revealed diffuse fibrin microthrombi in multiple organs, including kidneys, pituitary, and myocardium. Transtentorial herniation appeared to be the cause of death. Cultures of food samples from the patient's refrigerator yielded no pathogens.

Reported by PG Ramsey, MD, MA Neill, MD, Dept of Medicine, Dept of Microbiology, University of Washington, Dept of Microbiology, Children's Hospital and Medical Center, Seattle; Enteric Diseases Br, Div of Bacterial Diseases, Center for Infectious Diseases, CDC.

Editorial Note: The syndromes of TTP and HUS share many features, including thrombocytopenia, microangiopathic hemolytic anemia, and renal disease (*4,6*). Neurologic manifestations and fever complete the pentad of symptoms characteristic of TTP; these symptoms can also be present in HUS. Diarrhea, frequently bloody, is usually present a few days before the onset of HUS. Although diarrhea is not often described before onset of TTP, abdominal pain has been noted in 13%-14% of patients (*4,7*), and major gastrointestinal hemorrhage can occur (*7*).

Verotoxin-producing *E. coli*, including *E. coli* O157:H7, has been associated with HUS (*2,3,8*). It has been postulated that one or more verotoxins may be involved in HUS, but the mechanism remains unknown. A rise in verotoxin-neutralizing antibody has been detected in paired sera from patients with HUS (*2*). Drugs, toxins, infectious agents, immunologic disease, and pregnancy have all been proposed as etiologic agents for TTP (*4*). The isolation of *E. coli* O157:H7 from stool of the patient described here with bloody diarrhea and TTP suggest infection with this agent may represent another feature common to both TTP and HUS. *E. coli* O157:H7 can cause nonbloody diarrhea and asymptomatic infection (*8,9*). It is not known whether *E. coli* O157:H7 may be associated with HUS or TTP without antecedent bloody diarrhea.

Recovery of *E. coli* O157:H7 is optimal when specimens are obtained within 6 days after onset of diarrhea (*10*). Laboratories can screen for *E. coli* O157:H7 using media containing sorbitol, since *E. coli* O157:H7 does not ferment sorbitol rapidly, whereas 93% of other *E. coli* do (*11*). Isolates that do not ferment sorbitol within 24 hours can be sent to an appropriate reference laboratory for serotyping. However, since *E. coli* other than serotype O157:H7 have also been associated with HUS (*2*), and these *E. coli* may ferment sorbitol, a thorough investigation requires screening of stool specimens by a reference laboratory. An aliquot of stool can be frozen at -70 C (-94 F) as soon as the diagnosis of HUS or TTP is considered, pending the investigation of other causes. CDC's Enteric Diseases Branch is interested in obtaining frozen stool specimens from patients with HUS or TTP to analyze for verotoxin-producing *E. coli*; arrangements can be made through state epidemiologists or laboratory directors.

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Aseptic Meningitis Among Kidney Transplant Recipients Receiving a Newly Marketed Murine Monoclonal Antibody Preparation

During July 1986, four patients being treated for kidney allograft rejection in two hospitals developed headache, fever, and photophobia (three patients) or fever alone (one patient) during administration of a recently marketed murine monoclonal antibody preparation, Orthoclone OKT3* (Ortho Pharmaceutical Corporation, Raritan, New Jersey). All patients had onset of symptoms within 72 hours of beginning their course of treatment with the product. OKT3 had been administered daily as 5 mg OKT3 mixed with 50 ml normal saline and infused intravenously over a 1-hour period. Lumbar puncture results on all four patients suggested aseptic meningitis; they revealed cerebrospinal fluid (CSF) pleocytosis, elevated CSF protein, and normal CSF glucose. Initial CSF white blood cell counts ranged from 18 to 445/mm^3, with 40%-89% polymorphonuclear neutrophils. All bacterial cultures of CSF and blood were sterile. Viral cultures of throat and stool were done in two patients and CSF in one patient; all have remained negative. Symptoms in all four patients resolved within 5 days with no evidence of neurologic sequelae. Two of the patients received neither antibiotic nor antiviral therapy.

Four other patients who were treated for kidney allograft rejection during July 1986 at the same hospitals but did not receive OKT3 had no signs or symptoms suggesting possible aseptic meningitis. All eight patients received other drug and therapeutic interventions commonly given to treat kidney allograft rejection.

Investigations of the reactions are currently under way by hospital, state, Food and Drug Administration (FDA), and company officials.

Reported by R Massanari, MD, M Martin, MD, University of Iowa Hospitals and Clinics, J Smith, MD, D Nghiem, MD, RJ Corry, MD, M Flanigan, MD, C Emmons, MD, University of Iowa Hospitals and Clinics and Veterans Administration Hospital, Iowa City, LA Wintermeyer, MD, State Epidemiologist, Iowa State Dept of Public Health; Div of Blood and Blood Products, Div of Epidemiology and Surveillance, Center for Drugs and Biologics, Food and Drug Administration; Hospital Infections Program, Div of Host Factors, Center for Infectious Diseases, CDC.

Editorial Note: OKT3 has been reported effective in the treatment of acute kidney allograft rejection (*1*). Commonly reported adverse reactions have included fever, chills, dyspnea, chest pain and tightness, wheezing, nausea and vomiting, and tremor (*1*). In one study, fever was reported in up to 73% of recipients. Reactions were noted 45-60 minutes after the first injection; second injections were associated with fewer reactions, and symptoms were uncommon in subsequent injections (*1*). The incidence of aseptic meningitis during treatment with OKT3 is not known. Sixteen (2%) of 977 patients who received OKT3 during premarket trials had a lumbar puncture. Complete information was available for only seven of the 16 pa-

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*Use of trade names is for identification only and does not constitute endorsement by the Public Health Service, U.S. Department of Health and Human Services.

Aseptic Meningitis — Continued

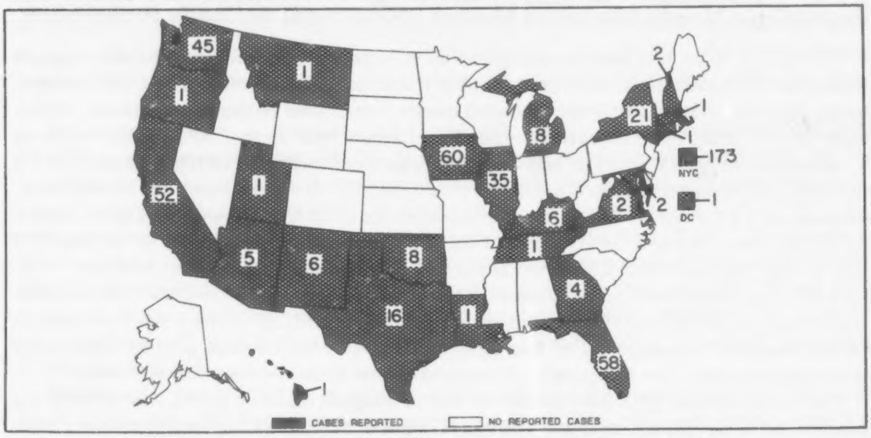
tients. In six of the seven patients, CSF cell count, CSF protein, and CSF glucose were consistent with aseptic meningitis; all bacterial, fungal, and viral cultures were negative. The extent and nature of meningeal pathology is unknown. Micrologic evaluation is incomplete for all patients but suggests an immunologically mediated reaction as one possible etiology. No clinical sequelae directly attributable to the reactions have been identified.

To assess the occurrence of aseptic meningitis and to establish incidence rates in patients receiving OKT3, the FDA and Ortho Pharmaceuticals have instituted a postmarket clinical evaluation of the product. The company has provided additional information about this evaluation to potential users of their product. Other physicians interested in this information should contact Ortho Pharmaceuticals, telephone (800) 433-1015; in New Jersey, (201) 218-6410.

Reference

1. Ortho Multicenter Transplant Study Group. A randomized clinical trial of OKT3 monoclonal antibody for acute rejection of cadaveric renal transplants. N Engl J Med 1985;313:337-42.

FIGURE I. Reported measles cases — United States, weeks 30-33, 1986



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CENTERS FOR DISEASE CONTROL

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MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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International Notes

Brazilian Purpuric Fever: *Haemophilus aegyptius* Bacteremia Complicating Purulent Conjunctivitis

Brazilian purpuric fever (BPF) was first recognized in late 1984 in the town of Promissao, São Paulo State, Brazil (*1*). The disease was characterized by the acute onset of high fever, vomiting, and abdominal pain, followed by purpura, vascular collapse, and death in children 3 months to 8 years of age. There was no evidence of meningitis, and blood cultures were negative when obtained, although some patients may have received antibiotics. *Haemophilus aegyptius* (*Haemophilus influenzae*, biotype III) was isolated from a nonaseptically obtained skin scraping of a petechia from an affected child.

Although the etiology could not be determined at the time of the outbreak, an epidemiologic investigation indicated disease was associated with preceding purulent conjunctivitis. *H. aegyptius* was the most commonly isolated organism from children with purulent conjunctivitis in Promissao; however, conjunctival cultures had not been obtained from children who subsequently developed BPF. Surveillance for BPF also identified other cases, including an outbreak of 17 cases that had occurred in 1984 in a town in the neighboring state of Paraná. In addition, 12 sporadic cases in early 1985 and a cluster of eight cases in February 1986 all occurred in towns in São Paulo State.

In March 1986, an outbreak of purulent conjunctivitis occurred in Serrana, São Paulo State. Because of surveillance established for BPF and the development of protocols for collecting specimens, blood cultures were obtained from children in Serrana with fever and concomitant or recent histories of conjunctivitis and from those with clinical presentations consistent with BPF.

Ten children, 20 months to 6 years of age, had blood (eight) or cerebrospinal fluid (CSF) (two) cultures positive for *H. aegyptius*. However, none had evidence of meningitis, and there was evidence that the two culture-positive CSF specimens may have been contaminated with blood. All had fever; only five had petechiae and/or purpura. Four of the 10 died. Five of the 10 fit the previously established case definition of BPF (*1*), and nine had recent histories of conjunctivitis. The majority had received antibiotic eye drops for treatment of conjunctivitis.

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Purpuric Fever – Continued

Among the 10 culture-confirmed cases and an additional case that fit the BPF case definition, patients who received intravenous antibiotics (generally ampicillin with or without chloramphenicol) before the development of petechiae or purpura (five of six) were more likely to survive than those who did not (one of five). Four additional patients with BPF and blood cultures positive for *H. aegyptius* were reported from four other towns in São Paulo State between March and June 1986.

Based on these findings, the case definition of BPF has been revised:

A. A febrile illness in a child with isolation of *H. aegyptius* from a normally sterile body site (e.g., blood, CSF).

OR

B. 1. An acute illness in a child aged 3 months to 10 years characterized by:
    a. Fever of 38.5 C (101.3 F) or higher.
    b. Abdominal pain and/or vomiting.
    c. Development of petechiae and/or purpura.
    d. No evidence of meningitis.
 2. History of conjunctivitis within the 30 days preceding the onset of fever.
 3. At least one of the following two tests negative for *Neisseria meningitidis:*
    a. Blood cultures taken before antibiotic administration.
    b. Serum or urine antigen detection.
 4. Other laboratory data if obtained:
    a. CSF containing 100 or fewer leukocytes per mm^3 and negative culture or antigen detection for pathogenic bacteria other than *H. aegyptius.*
    b. Blood cultures taken before antibiotic administration negative for known pathogenic bacteria other than *H. aegyptius.*
    c. Serologic studies, if obtained, negative for known pathogens other than *H. aegyptius.*

Reported by Brazilian Purpuric Fever Task Force, São Paulo, Brazil, and Atlanta, Georgia.

Editorial Note: BPF is a serious systemic illness that accumulating evidence suggests is due to invasive *H. aegyptius* disease. The illness characteristically begins with purulent conjunctivitis caused by *H. aegyptius* and progresses in a small percentage of patients to fever and other systemic manifestations due to disseminated *H. aegyptius* infection. If untreated, some patients may develop petechiae and purpura and die from overwhelming endotoxemia and shock. The clinical presentation of BPF is similar to meningococcemia.

The observation that the majority of patients had initially received local antibiotic therapy for treatment of conjunctivitis suggests that topical treatment of conjunctivitis may be inadequate in preventing BPF. However, use of systemic antibiotics to treat BPF before development of hemorrhagic skin lesions may be effective in preventing progression of the disease and reducing the case-fatality rate.

It is unknown whether BPF occurs in areas other than southern Brazil. In many areas, blood cultures may not be drawn if cases are treated empirically for presumed meningococcemia. However, the occurrence of clusters in areas separated by 250 miles suggests the potential for spread.

Questions about BPF or reports of similar illnesses should be directed to the Meningitis and Special Pathogens Branch, Division of Bacterial Diseases, Center for Infectious Diseases, CDC; telephone (404) 329-3687.

Reference

1. CDC. Preliminary report: epidemic fatal purpuric fever among children—Brazil. MMWR 1985;34:217-9.

Epidemiologic Notes and Reports

Rabies in a Javelina — Arizona

On March 1, 1986, a 47-year-old woman and her husband were hunting javelina (collared peccary, *Pecari angulatus*, a pig-like mammal) near the Superstition Mountains, east of Phoenix, Arizona. The woman saw a javelina "chasing its tail"; she was subsequently attacked and bitten by the animal on her left upper thigh. Her husband shot the animal to dislodge it from her thigh. The bite resulted in a jagged 3½ inch wound, and the woman was treated at a local hospital. The animal was diagnosed as rabid by the direct immunofluorescent antibody test on a brain specimen, from which rabies virus was also isolated. The woman received rabies postexposure prophylaxis.

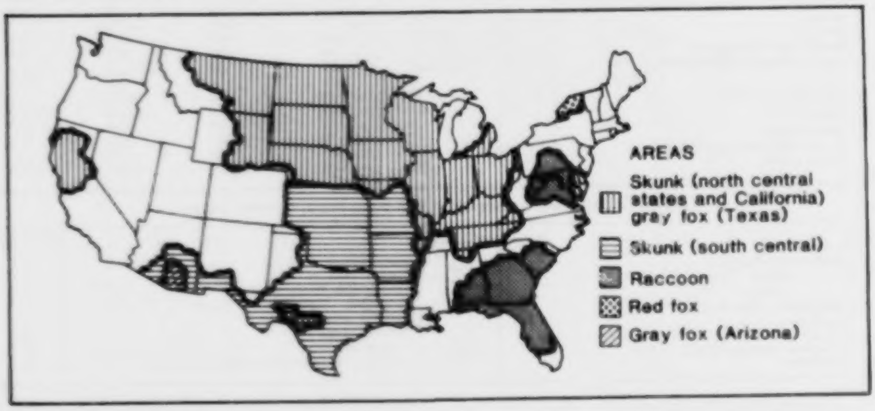
Reported by M Hetrick, H Goodman, MD, Gila County Dept of Health, M Wright, D Woodall, R Cheshire, J Doll, PhD, SJ Englender, MD, LF Novick, MD, C Levy, GG Caldwell, MD, State Epidemiologist, Arizona Dept of Health Svcs; Viral and Rickettsial Zoonoses Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: This is the first report of rabies in a javelina. Bites by javelina are most likely to occur while the animals are being sought as game. Javelina are found south of 35 N latitude in parts of Arizona, New Mexico, and Texas, most of Central America except for central Mexico, and south to Colombia.

Almost all wildlife rabies in the United States occurs among skunk, raccoon, bat, and fox species (in decreasing frequency of reported cases); however, the disease is occasionally found in an unexpected host. The origin of rabies in these animals can be investigated by typing the virus with a panel of monoclonal antibodies (mabs) to nucleocapsid proteins (*1*).

On the basis of nucleocapsid reactivity with a panel of mabs, five antigenically distinct groups of rabies viruses can be formed from isolates collected from the major terrestrial wildlife rabies enzootic areas of the United States (Figure 1). These five antigenically distinct groups comprise isolates collected from: (1) skunk rabies areas of California and the north central United States and gray fox rabies areas of central Texas; (2) skunk rabies areas of the south central United States; (3) raccoon rabies areas of the mid-Atlantic and southeastern

FIGURE 1. Distribution of five antigenically distinct rabies virus strains and the predominant wildlife species affected — contigous United States


AREAS
Skunk (north central states and California) gray fox (Texas)
Skunk (south central)
Raccoon
Red fox
Gray fox (Arizona)

Rabies — Continued

United States; (4) red fox rabies areas of the northeast United States; and (5) gray fox rabies areas of Arizona.

There are two separate enzootic hosts for rabies in Arizona, the striped skunk and the gray fox. Virus isolates from these two species can easily be distinguished with mabs. Rabies virus from the javelina was identical to that found in rabid gray foxes in Arizona, suggesting that the infection in the javelina was the result of spillover from enzootic disease in foxes. The reaction pattern found in virus isolates from foxes in Arizona is unique among over 300 rabies isolates collected from terrestrial mammals elsewhere in the United States. Moreover, the virus strains in foxes and skunks in Arizona are different from each other, even when infected animals of both species are found in the same area. Fox virus isolates from Texas also differ in their reactivity pattern from skunks in Texas, even when isolates from both species are collected in the same county. This observation is unique to Arizona and Texas.

Rabies laboratories are encouraged to submit for monoclonal antibody typing brain specimens from rabies cases that occur unexpectedly in a new species or area. Such specimens should be submitted through state health departments to CDC.

(Continued on page 561)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	35th Week Ending			Cumulative, 35th Week Ending		
	Aug. 30, 1986	Aug. 31, 1985	Median 1981-1985	Aug. 30, 1986	Aug. 31, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	252	184	N	8,357	5,139	N
Aseptic meningitis	353	357	371	5,505	4,998	4,998
Encephalitis: Primary (arthropod-borne & unspec.)	21	31	60	648	727	811
Post-infectious	4	5	1	73	94	86
Gonorrhea: Civilian	13,345	17,013	18,329	578,443	585,934	597,452
Military	285	455	455	11,132	14,249	16,161
Hepatitis: Type A	305	486	420	14,349	14,581	14,581
Type B	424	548	472	17,246	17,033	15,879
Non A, Non B	50	69	N	2,368	2,753	N
Unspecified	47	91	103	3,043	3,806	4,765
Legionellosis	6	9	N	418	473	N
Leprosy	-	5	5	175	262	169
Malaria	23	16	16	667	678	678
Measles: Total*	57	56	10	5,249	2,388	2,244
Indigenous	53	34	N	5,009	1,991	N
Imported	4	22	N	240	397	N
Meningococcal infections: Total	25	20	34	1,780	1,698	2,003
Civilian	25	20	34	1,778	1,692	1,999
Military	-	-	-	2	6	9
Mumps	45	27	27	3,304	2,170	2,407
Pertussis	48	167	66	1,984	1,839	1,394
Rubella (German measles)	5	45	18	390	541	758
Syphilis (Primary & Secondary): Civilian	295	585	585	17,135	17,938	20,357
Military	2	1	5	112	119	250
Toxic Shock syndrome	4	5	N	238	263	N
Tuberculosis	377	511	449	14,469	14,257	15,598
Tularemia	5	4	10	94	119	168
Typhoid fever	4	3	6	184	226	270
Typhus fever, tick-borne (RMSF)	36	25	40	559	476	777
Rabies, animal	74	98	126	3,700	3,575	4,319

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis (Tex. 1)	24
Botulism: Foodborne	8	Plague (Ariz. 1)	6
Infant (N.Mex. 1)	37	Poliomyelitis, Paralytic	-
Other	1	Psittacosis (Upstate N.Y. 1, Fla. 1)	71
Brucellosis (Ohio 1, N.C. 1)	53	Rabies, human	-
Cholera	-	Tetanus (Tex. 1)	44
Congenital rubella syndrome	2	Trichinosis	21
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	34
Diphtheria	-		

*Four of the 57 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending August 30, 1986 and August 31, 1985 (35th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	8,357	353	648	73	578,443	585,934	305	424	50	47	6	175
NEW ENGLAND	373	19	17	3	14,463	15,439	15	39	12	1	1	6
Maine	14	3	-	-	606	747	-	7	-	-	-	-
N.H.	9	-	2	-	378	396	-	-	-	-	-	-
Vt.	3	1	2	2	167	209	2	-	1	-	-	-
Mass.	203	-	4	-	5,757	5,947	7	19	9	1	1	6
R.I.	21	10	-	-	1,146	1,226	-	3	1	-	-	-
Conn.	123	5	9	1	6,409	6,914	6	10	1	-	-	-
MID. ATLANTIC	3,211	64	75	7	98,427	84,862	17	72	3	2	-	12
Upstate N.Y.	297	36	27	4	11,610	11,257	6	37	1	-	-	1
N.Y. City	2,202	-	15	-	56,870	42,583	-	-	-	-	-	10
N.J.	495	15	10	-	12,954	12,799	7	20	1	2	-	-
Pa.	217	13	23	3	16,993	18,223	4	15	1	-	-	1
E.N. CENTRAL	491	97	183	11	75,685	78,841	20	46	2	5	-	4
Ohio	96	34	58	3	19,568	20,109	4	19	-	1	-	-
Ind.	50	24	42	3	8,060	8,497	-	7	-	2	-	-
Ill.	242	3	38	4	21,182	20,706	11	2	-	2	-	3
Mich.	78	36	35	1	24,107	21,887	5	18	2	-	-	1
Wis.	25	U	10	-	2,768	7,642	U	U	U	U	U	-
W.N. CENTRAL	161	26	30	8	25,094	27,395	15	18	2	1	-	2
Minn.	60	-	12	-	3,591	3,998	2	-	-	-	-	1
Iowa	11	3	9	-	2,575	2,902	2	3	-	-	-	-
Mo.	56	9	1	-	12,533	13,170	5	8	1	-	-	-
N. Dak.	2	-	-	-	222	182	-	-	-	-	-	-
S. Dak.	1	7	7	-	516	509	3	1	-	-	-	-
Nebr.	7	3	-	1	1,928	2,371	1	1	-	-	-	-
Kans.	24	4	1	7	3,729	4,263	2	5	1	1	-	1
S. ATLANTIC	1,191	54	84	26	152,419	151,333	50	73	7	3	5	2
Del.	18	-	5	-	2,470	2,787	12	-	-	-	-	-
Md.	122	13	25	1	18,033	19,439	1	6	-	-	-	-
D.C.	151	-	-	1	11,255	10,157	1	2	-	-	-	-
Va.	110	5	27	1	12,341	12,721	1	6	-	-	-	1
W. Va.	6	5	13	-	1,495	1,712	-	4	1	-	-	-
N.C.	47	11	12	1	23,909	23,450	2	9	1	2	3	-
S.C.	28	1	-	-	13,118	14,311	-	20	-	-	1	-
Ga.	170	5	-	1	25,547	30,623	4	15	2	-	1	-
Fla.	539	14	2	21	44,251	36,133	29	11	3	1	-	1
E.S. CENTRAL	110	7	42	3	47,274	49,908	5	24	1	4	-	1
Ky.	25	2	20	1	5,223	5,665	2	2	-	-	-	-
Tenn.	53	3	3	1	18,297	18,976	3	8	1	1	-	-
Ala.	20	2	18	1	13,504	15,496	-	14	-	2	-	1
Miss.	12	-	1	-	10,250	9,771	-	-	-	1	-	-
W.S. CENTRAL	491	58	88	6	68,872	73,502	47	51	4	14	-	16
Ark.	21	-	-	2	6,507	7,237	-	3	1	-	-	-
La.	111	2	3	-	12,368	14,384	1	6	1	-	-	1
Okla.	27	7	16	-	7,886	8,019	9	2	-	1	-	-
Tex.	332	49	69	4	42,111	43,862	37	40	2	13	-	15
MOUNTAIN	206	19	23	1	17,282	18,358	82	57	11	12	-	11
Mont.	4	-	-	1	482	505	1	1	1	1	-	-
Idaho	2	-	-	-	556	553	4	2	-	-	-	-
Wyo.	4	-	2	-	375	431	-	-	-	-	-	-
Colo.	96	8	4	-	4,528	5,442	1	4	-	2	-	3
N. Mex.	11	-	3	-	1,709	2,113	6	-	2	-	-	-
Ariz.	52	11	8	-	5,602	5,341	59	41	6	9	-	5
Utah	13	-	5	-	733	829	7	-	1	-	-	1
Nev.	24	-	1	-	3,297	3,144	4	9	1	-	-	2
PACIFIC	2,123	9	106	8	78,927	86,296	54	44	8	5	-	121
Wash.	93	-	11	-	5,917	6,420	31	29	4	4	-	14
Oreg.	47	-	-	-	3,371	4,264	23	10	4	1	-	-
Calif.	1,938	U	92	8	66,897	72,411	U	U	U	U	U	84
Alaska	11	2	3	-	1,847	1,985	-	4	-	-	-	-
Hawaii	34	7	-	-	895	1,216	-	1	-	-	-	23
Guam	-	U	-	-	122	137	U	U	U	U	U	1
P.R.	76	2	4	-	1,539	2,262	-	4	-	-	-	7
V.I.	3	-	-	-	166	327	-	-	-	-	-	-
Pac. Trust Terr.	-	-	-	-	295	655	1	-	-	-	-	33
Amer. Samoa	-	U	-	-	30	-	U	U	U	U	U	2

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 30, 1986 and August 31, 1985 (35th Week)

Reporting Area	Malaria	Measles (Rubeola)					Meningococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	667	53	5,009	4	240	2,388	1,780	45	3,304	48	1,984	1,839	5	390	541
NEW ENGLAND	38	-	77	-	8	124	125	-	52	-	113	93	-	9	12
Maine	1	-	10	-	-	1	23	-	-	-	2	5	-	-	-
N.H.	2	-	41	-	-	-	6	-	12	-	58	38	-	1	2
Vt.	1	-	-	-	-	-	15	-	3	-	3	3	-	1	-
Mass.	20	-	23	-	6	116	29	-	9	-	28	28	-	4	6
R.I.	5	-	2	-	-	-	17	-	9	-	4	12	-	2	-
Conn.	9	-	1	-	2	7	35	-	19	-	18	7	-	1	4
MID ATLANTIC	94	4	1,610	2	23	200	286	1	136	3	138	111	-	31	215
Upstate N.Y.	32	4	68	-	19	82	95	1	54	2	89	64	-	23	17
N.Y. City	25	-	615	-	2	63	57	-	5	-	3	11	-	5	173
N.J.	18	-	905	-	-	27	30	-	36	-	11	3	-	3	11
Pa.	19	-	22	2†	2	28	104	-	41	1	35	33	-	-	14
E.N. CENTRAL	44	2	970	-	16	515	243	33	2,251	10	259	389	2	37	28
Ohio	14	-	-	-	10	54	97	-	100	9	117	37	-	1	-
Ind.	2	-	17	-	-	57	20	-	31	-	22	98	-	-	1
Ill.	14	2	636	-	3	290	67	32	1,676	1	29	41	2	26	12
Mich.	13	-	56	-	-	55	53	1	249	-	24	30	-	8	14
Wis.	1	U	261	U	3	59	6	U	195	U	67	183	U	2	1
W.N. CENTRAL	23	-	322	-	17	11	86	3	85	17	180	117	-	10	19
Minn.	6	-	45	-	4	6	17	-	1	1	44	50	-	-	2
Iowa	1	-	133	-	1	-	11	3	24	-	13	5	-	1	1
Mo.	10	-	25	-	6	2	30	-	15	-	12	24	-	1	7
N. Dak.	-	-	25	-	1	2	-	-	3	-	4	9	-	1	2
S. Dak.	-	-	-	-	-	-	4	-	1	-	14	2	-	-	-
Nebr.	4	-	-	-	-	-	9	-	-	-	1	4	-	-	-
Kans.	2	-	94	-	5	1	15	-	41	16	92	23	-	7	7
S. ATLANTIC	87	34	539	-	53	287	325	4	158	3	591	384	-	10	50
Del.	1	-	1	-	-	-	2	-	-	-	222	-	-	-	1
Md.	12	3	25	-	9	94	44	-	15	-	136	231	-	-	6
D.C.	1	-	-	-	2	13	4	-	-	-	-	-	-	-	-
Va.	22	1	36	-	24	26	55	-	34	-	30	8	-	-	2
W. Va.	4	-	2	-	-	33	3	-	38	-	23	4	-	-	9
N.C.	4	-	2	-	1	9	56	-	14	-	41	17	-	-	-
S.C.	6	-	274	-	-	3	29	-	12	-	13	1	-	-	3
Ga.	8	-	79	-	14	8	50	1	15	-	102	76	-	-	-
Fla.	29	30	120	-	3	101	82	3	30	3	24	47	-	10	29
E.S. CENTRAL	16	1	57	-	8	7	99	-	25	-	42	30	-	4	2
Ky.	4	-	-	-	6	5	24	-	6	-	5	3	-	4	2
Tenn.	1	-	54	-	1	1	36	-	16	-	15	16	-	-	-
Ala.	7	1	1	-	1	-	28	-	2	-	22	7	-	-	-
Miss.	4	-	2	-	-	1	11	-	1	-	-	4	-	-	-
W.S. CENTRAL	71	11	596	2	36	423	155	1	152	4	169	264	2	57	32
Ark.	-	-	276	-	2	-	22	-	7	-	11	12	-	-	1
La.	14	-	4	-	-	42	22	-	2	-	11	10	-	-	-
Okla.	9	-	37	-	2	1	21	N	N	4	93	125	-	-	1
Tex.	48	11	279	2§	32	380	90	1	143	-	54	117	2	57	30
MOUNTAIN	26	1	297	-	26	529	89	3	206	10	199	140	1	22	5
Mont.	-	-	-	-	8	137	8	-	5	2	12	7	-	2	-
Idaho	1	-	1	-	-	137	3	-	6	-	33	8	-	-	1
Wyo.	-	-	-	-	-	-	2	-	-	3	4	-	1	1	-
Colo.	8	-	2	-	5	13	14	1	12	1	53	47	-	1	-
N. Mex.	4	-	32	-	7	6	8	N	N	2	19	11	-	-	2
Ariz.	8	-	252	-	6	236	19	1	168	1	47	27	-	2	1
Utah	2	1	9	-	-	-	9	-	10	1	28	40	-	13	-
Nev.	3	-	1	-	-	-	26	1	5	-	3	-	-	3	1
PACIFIC	268	-	541	-	53	292	372	-	239	1	293	311	-	210	178
Wash.	21	-	158	-	25	66	54	-	7	1	83	53	-	14	11
Oreg.	15	-	4	-	4	3	30	N	N	-	10	35	-	1	1
Calif.	231	U	358	U	22	203	275	U	209	U	190	182	U	191	117
Alaska	-	-	-	-	-	-	11	-	5	-	2	29	-	-	1
Hawaii	1	-	21	-	2	20	2	-	17	-	8	12	-	4	48
Guam	1	U	4	U	1	11	-	U	4	U	-	-	U	3	2
P.R.	4	-	33	-	-	50	2	3	26	-	13	10	-	60	25
V.I.	-	-	-	-	-	10	-	-	13	-	-	-	-	-	-
Pac. Trust Terr.	-	-	-	-	-	-	1	-	7	-	-	-	-	2	-
Amer. Samoa	-	U	2	U	-	-	-	U	4	U	-	-	U	1	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 30, 1986 and August 31, 1985 (35th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic shock Syndrome	Tuberculosis		Tularemia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	17,135	17,938	4	14,469	14,257	94	184	559	3,700
NEW ENGLAND	314	361	-	473	483	1	11	10	3
Maine	15	10	-	32	35	-	-	-	-
N.H.	10	9	-	19	16	-	-	1	-
Vt	7	5	-	13	4	-	-	-	-
Mass	165	181	-	247	287	1	9	3	-
R.I.	18	12	-	35	35	-	-	3	1
Conn	99	144	-	127	106	-	2	3	2
MID ATLANTIC	2,466	2,371	1	2,954	2,595	1	15	24	444
Upstate N.Y.	107	179	-	424	452	-	3	14	59
N.Y. City	1,419	1,466	-	1,536	1,257	-	6	5	-
N.J.	445	465	1	506	373	1	5	2	16
Pa	495	261	-	488	513	-	1	3	369
E.N. CENTRAL	677	727	1	1,749	1,749	-	13	60	92
Ohio	92	100	1	307	314	-	2	56	9
Ind	80	65	-	181	216	-	2	-	14
Ill	351	362	-	756	762	-	2	1	27
Mich	119	154	-	427	351	-	5	3	21
Wis	35	46	U	78	106	-	2	-	21
W.N. CENTRAL	148	155	1	424	385	29	8	39	588
Minn	27	32	-	104	79	-	1	1	82
Iowa	6	17	-	35	43	1	-	1	132
Mo	81	76	-	211	188	23	6	20	63
N. Dak	3	2	-	6	6	-	-	1	132
S. Dak	3	5	-	16	19	2	-	6	115
Nebr	11	7	-	7	13	1	-	4	22
Kans	17	16	1	45	37	2	1	6	42
S. ATLANTIC	5,261	5,309	-	2,762	2,890	9	26	256	883
Del	36	26	-	27	27	-	1	1	-
Md	293	318	-	213	261	2	6	28	439
D.C.	208	240	-	94	109	1	2	-	26
Va	254	203	-	229	245	2	6	41	119
W. Va	18	15	-	82	78	-	3	7	30
N.C.	339	457	-	372	368	1	4	90	7
S.C.	456	548	-	358	356	-	-	59	41
Ga	1,014	917	-	422	486	3	-	29	140
Fla	2,643	2,585	-	965	960	-	4	1	81
E.S. CENTRAL	1,170	1,378	-	1,254	1,249	8	2	66	241
Ky	54	43	-	298	292	3	-	17	64
Tenn	410	429	-	367	361	4	1	27	97
Ala	376	430	-	393	371	1	-	14	78
Miss	330	476	-	196	225	-	1	8	2
W.S. CENTRAL	3,457	4,064	-	1,870	1,769	41	15	95	538
Ark	165	212	-	246	196	30	-	4	123
La	595	706	-	320	264	1	1	-	15
Okla	94	123	-	175	177	6	1	76	47
Tex	2,603	3,023	-	1,129	1,132	4	13	15	353
MOUNTAIN	408	490	1	343	361	4	8	8	529
Mont	6	5	-	20	46	1	1	4	175
Idaho	10	4	-	16	15	-	-	-	4
Wyo	1	7	-	-	5	-	-	1	224
Colo	100	116	-	30	43	-	1	3	23
N. Mex	52	95	-	69	66	1	-	-	6
Ariz	167	230	-	163	154	-	3	-	87
Utah	12	5	1	28	10	1	2	-	3
Nev	60	28	-	17	22	1	1	-	7
PACIFIC	3,234	3,083	-	2,640	2,776	1	86	1	382
Wash	99	80	-	128	159	-	3	-	5
Oreg	75	62	-	95	90	-	-	-	-
Calif	3,033	2,889	U	2,250	2,326	-	79	1	369
Alaska	2	2	-	37	71	1	1	-	8
Hawaii	25	50	-	130	130	-	3	-	-
Guam	1	2	U	34	31	-	-	-	-
P.R.	576	536	-	225	240	-	4	-	35
V.I.	-	1	-	1	1	-	-	-	-
Pac. Trust Terr.	170	92	-	44	44	-	42	-	-
Amer. Samoa	-	-	U	4	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending August 30, 1986 (35th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	566	381	115	32	15	23	39
Boston, Mass	133	75	31	10	7	10	13
Bridgeport, Conn	39	25	12	2	-	-	2
Cambridge, Mass	31	23	5	3	-	-	3
Fall River, Mass	31	28	2	1	-	-	-
Hartford, Conn	59	37	11	4	3	4	1
Lowell, Mass	18	13	4	1	-	-	1
Lynn, Mass	14	10	3	1	-	-	1
New Bedford, Mass	16	13	3	-	-	-	1
New Haven, Conn	46	29	8	4	2	3	1
Providence, R.I.	44	34	7	1	1	1	4
Somerville, Mass	4	3	1	-	-	-	-
Springfield, Mass	46	27	11	3	1	4	7
Waterbury, Conn	31	22	7	1	-	1	5
Worcester, Mass	54	42	10	1	1	-	-
MID ATLANTIC	2,535	1,596	532	266	72	69	111
Albany, N.Y.	42	30	4	3	1	4	3
Allentown, Pa	23	20	2	1	-	-	-
Buffalo, N.Y.	89	57	28	3	-	1	8
Camden, N.J.	31	17	7	3	4	-	1
Elizabeth, N.J.	29	19	6	3	1	-	-
Erie, Pa.†	52	36	12	3	-	1	1
Jersey City, N.J.	40	26	8	4	1	1	3
N.Y. City, N.Y.	1,293	800	252	177	38	26	49
Newark, N.J.	81	30	23	19	3	6	9
Paterson, N.J.	28	19	5	3	1	-	3
Philadelphia, Pa	403	244	96	28	13	22	19
Pittsburgh, Pa.†	64	47	15	2	-	-	-
Reading, Pa	26	19	4	2	-	1	1
Rochester, N.Y.	126	89	23	7	3	4	10
Schenectady, N.Y.	36	24	12	-	-	-	-
Scranton, Pa.†	20	12	7	-	1	-	1
Syracuse, N.Y.	84	53	19	4	5	3	-
Trenton, N.J.	28	21	6	1	-	-	1
Utica, N.Y.	22	19	1	2	-	-	-
Yonkers, N.Y.	18	14	2	1	1	-	2
E.N. CENTRAL	2,116	1,349	461	170	51	85	74
Akron, Ohio	48	37	6	3	-	2	-
Canton, Ohio	27	19	6	1	-	1	1
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	96	67	14	6	7	2	9
Cleveland, Ohio	146	74	42	17	4	9	3
Columbus, Ohio	83	56	13	10	1	3	4
Dayton, Ohio	130	88	29	8	2	3	6
Detroit, Mich	257	148	57	28	9	15	7
Evansville, Ind	38	28	8	1	-	1	1
Fort Wayne, Ind	59	36	16	5	2	-	2
Gary, Ind	13	9	3	1	-	-	-
Grand Rapids, Mich	55	32	11	5	1	6	6
Indianapolis, Ind	170	99	49	10	6	6	2
Madison, Wis	31	18	9	1	3	-	1
Milwaukee, Wis	128	91	22	8	-	7	3
Peoria, Ill	33	22	5	4	-	2	5
Rockford, Ill	31	24	3	4	-	-	-
South Bend, Ind	50	38	10	1	1	-	1
Toledo, Ohio	102	67	19	7	4	5	5
Youngstown, Ohio	55	34	14	5	1	1	2
W.N. CENTRAL	704	467	140	46	27	24	29
Des Moines, Iowa	60	45	9	3	-	3	2
Duluth, Minn	23	19	4	-	-	-	-
Kansas City, Kans	27	17	6	2	2	-	2
Kansas City, Mo	93	57	19	9	6	2	1
Lincoln, Nebr	36	24	6	3	2	1	3
Minneapolis, Minn	109	69	25	5	3	7	8
Omaha, Nebr	86	47	25	8	3	3	5
St. Louis, Mo	146	96	28	6	8	7	4
St. Paul, Minn	62	52	7	3	-	-	1
Wichita, Kans	63	41	11	7	3	1	3
S. ATLANTIC	1,216	720	276	109	50	29	54
Atlanta, Ga	128	71	34	14	9	-	7
Baltimore, Md	265	143	53	22	11	6	4
Charlotte, N.C.	67	43	19	4	-	1	3
Jacksonville, Fla	101	58	29	7	4	3	5
Miami, Fla	99	54	21	14	6	4	3
Norfolk, Va	57	28	21	4	2	2	5
Richmond, Va	91	55	19	10	5	2	4
Savannah, Ga	46	27	9	6	3	1	6
St. Petersburg, Fla	92	83	5	2	1	1	5
Tampa, Fla	74	48	16	3	3	3	9
Washington, D.C.	179	96	48	22	6	6	3
Wilmington, Del	17	14	2	1	-	-	-
E.S. CENTRAL	697	460	130	56	25	26	30
Birmingham, Ala	135	87	24	11	4	9	4
Chattanooga, Tenn	49	30	12	6	1	-	3
Knoxville, Tenn	73	42	15	5	7	4	3
Louisville, Ky	99	71	16	9	-	3	2
Memphis, Tenn	128	87	26	7	6	2	7
Mobile, Ala	60	36	10	6	3	5	1
Montgomery, Ala	36	28	6	-	-	2	2
Nashville, Tenn	117	79	21	12	4	1	8
W.S. CENTRAL	1,262	740	290	120	68	43	43
Austin, Tex	60	35	13	7	3	2	4
Baton Rouge, La	52	36	11	2	3	-	-
Corpus Christi, Tex	47	22	11	7	4	3	1
Dallas, Tex	206	119	40	27	12	8	8
El Paso, Tex	68	35	16	9	5	2	2
Fort Worth, Tex	86	56	21	4	2	3	6
Houston, Tex	243	121	66	32	17	7	3
Little Rock, Ark	69	43	16	4	4	2	2
New Orleans, La	110	60	30	9	6	5	-
San Antonio, Tex	159	106	30	9	7	7	8
Shreveport, La	71	43	16	6	2	4	4
Tulsa, Okla	91	64	20	4	3	-	5
MOUNTAIN	615	409	116	43	40	7	28
Albuquerque, N.Mex	76	51	11	4	9	1	3
Colo. Springs, Colo	28	24	2	2	-	-	4
Denver, Colo	125	88	27	6	3	1	5
Las Vegas, Nev	83	48	20	10	5	-	6
Ogden, Utah	17	12	4	1	-	-	1
Phoenix, Ariz	122	74	24	12	9	3	3
Pueblo, Colo	34	22	7	1	4	-	1
Salt Lake City, Utah	46	26	10	4	5	1	-
Tucson, Ariz	84	64	11	3	5	1	5
PACIFIC	1,569	999	302	155	60	50	84
Berkeley, Calif	12	9	2	1	-	-	1
Fresno, Calif	88	60	13	5	5	5	6
Glendale, Calif	7	6	1	-	-	-	1
Honolulu, Hawaii	75	49	13	9	2	2	6
Long Beach, Calif	87	61	18	3	4	1	7
Los Angeles, Calif	326	202	58	43	18	5	12
Oakland, Calif	52	37	7	6	-	2	2
Pasadena, Calif	26	20	5	-	-	1	-
Portland, Oreg	97	68	13	7	6	3	4
Sacramento, Calif	140	86	24	18	6	5	17
San Diego, Calif	144	84	31	10	9	8	9
San Francisco, Calif	157	84	40	24	3	6	3
San Jose, Calif	134	87	29	10	5	3	6
Seattle, Wash	125	82	22	12	1	8	6
Spokane, Wash	63	41	18	3	-	1	3
Tacoma, Wash	38	23	9	4	1	-	1
TOTAL	11,280††	7,121	2,362	997	408	356	492

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*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

†Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§Data not available. Figures are estimates based on average of past 4 weeks.

Rabies – Continued

This case emphasizes the importance of assessing every mammal bite individually for the possibility of rabies. After the bite of a wild animal, the decision to administer postexposure rabies prophylaxis is based on the results of fluorescent antibody examination of the animal brain, the status of rabies activity in the area where the bite occurred, and the species of biting animal.

Reference

1. Smith JS, Sumner JW, Roumillat LF, Baer GM, Winkler WG. Antigenic characteristics of isolates associated with a new epizootic of raccoon rabies in the United States. J Infect Dis 1984;149:769-74.

Current Trends

Leading Work-Related Diseases and Injuries

The National Institute for Occupational Safety and Health (NIOSH) has developed a suggested list of 10 leading work-related diseases and injuries and has described the first eight categories on that list.[*] *A discussion of the ninth category, Dermatologic Conditions, appears below.*

DERMATOLOGIC CONDITIONS

Background. A worker's skin is directly exposed to the occupational environment and is susceptible to a large number of dermatologic injuries and other conditions (Table 1). Complete data on the extent and cost of dermatologic injuries are not available; however, dermatologic conditions other than injuries accounted for 37% of the 106,100 occupational illnesses recorded in 1983 in the Bureau of Labor Statistics (BLS) Annual Survey of Occupational Injuries and Illnesses[†] (*1*). Results from the BLS Annual Survey for 1972-1976[§] indicated that 20%-25% of all occupational dermatologic conditions resulted in lost time from work (average 10-12 lost work days) (*2*). Similar data based on workers' compensation claims have been reported from California and South Carolina (*3,4*). Assuming that only 2%-10% of cases are actually reported, the annual cost of occupational dermatologic conditions resulting from lost worker productivity, medical care, and disability payments may range between $222 million and $1 billion (*5,6*).

TABLE 1. Selected examples of occupational dermatologic conditions

Skin disorders	Affected skin structures
Contact dermatitis	Epidermis
Infection	Epidermis and dermis
Trauma	Connective tissue
Cancer	Squamous and basal cells, melanocytes
Vitiligo	Melanocytes
Urticaria	Blood vessels and mast cells
Chloracne	Sebaceous glands

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[*] References to the previous articles are given in the most recent article (*MMWR* 1986;35:185-8).

[†] The BLS Annual Survey provides yearly national estimates of incidence rates of occupational illness based on a randomly selected national sample of private-sector U.S. businesses from all industrial classifications. The survey records all new ilinesses recognized during the reporting year (incidence) but does not measure continuing conditions from previous years (prevalence).

[§] Since 1978, the Annual Survey has not tabulated lost workday statistics separately by type of occupational illness.

Work-Related Diseases and Injuries — Continued

Because 10%-15% of requests that NIOSH receives for health hazard evaluations involve skin complaints, and because the economic impact of work-related dermatologic conditions is substantial, NIOSH has included dermatologic conditions on its list of 10 leading work-related diseases and injuries in the United States (*7*).

Dermatologic Injuries. Dermatologic injuries are usually described as the immediate adverse effects on skin that result from instantaneous trauma or brief exposure to toxic agents involving a single incident in the work environment (*1*). Skin injuries may constitute 23%-35% of all injuries (*8,9*). Thus, based on 4,748,000 injuries of all types, and a full-time worker population of 74,750,000 for 1983 (*1*), an estimated 1,070,000-1,650,000 dermatologic injuries may occur yearly, with an estimated annual rate of skin injury of 1.4-2.2 per 100 full-time workers. The highest percentage of skin injuries are due to lacerations/punctures (82%), followed by burns (chemical and other) (14%) (*8*) (Table 2).

Other Dermatologic Conditions. Other dermatologic conditions ("illnesses of the skin") may also result from exposure to environmental factors or toxic agents associated with employment. However, they usually result from more sustained or cumulative exposures and involve longer intervals between exposure and occurrence of disease. These conditions include contact dermatitis, infection, acne, and skin cancer. Workers' compensation claims data from California suggest that 95% of these occupational skin conditions are either contact dermatitis (90%) or infections (5%) (*3*). Field investigations in the 1950s showed that at least 80% of occupational contact dermatitis cases may be caused by the irritating direct cytotoxic effects of causal agents rather than immunologically mediated allergic reactions (*10*).

The highest number of other occupational skin conditions (23,017) in 1984 occurred in the manufacturing sector; the highest incidence rate (28.5/10,000 full-time workers) involved the combined agriculture/forestry/fishing division (Table 3).

The clinical course for occupational contact dermatitis is relatively poor. In three studies, complete resolution occurred in 25% of workers affected; 50% improved but had periodic recurrences; and 25% developed persistent dermatitis as severe as or worse than the original condition (*11-13*). Contact dermatitis often necessitates job changes or modifications. Despite these, however, complete resolution may occur in only a limited proportion of cases.

Prevention of Work-Related Dermatologic Disorders. The most effective prevention measures are engineering controls that eliminate exposures of the skin to chemical, physical, or mechanical agents through isolation, containment, or redesign of industrial processes. Substitution of less toxic substances through chemical engineering may also be effective (*14*). Protective clothing should be selected on the basis of resistance to both chemical and physical hazards, as well as on the relative permeabilities to specific chemical exposures. Effective

TABLE 2. Occupational dermatologic injuries* — United States, 1983

Type of injury	No.	(%)
Lacerations and punctures	253,141	(82.3)
Burns (nonchemical)	36,477	(11.9)
Abrasions	10,576	(3.4)
Burns (chemical)	6,828	(2.2)
Cold injuries	566	(0.2)
Radiation injuries	135	(0.04)
Total	**307,723**	**(100.0)**

*Reported by the Supplementary Data System of the Bureau of Labor Statistics from 29 participating states.

Work-Related Diseases and Injuries – Continued

cleaning of skin and clothing is important, but workers should not wash vigorously or excessively with harsh soaps and detergents (*15*). Barrier creams have been suggested as alternatives, although their effectiveness has not yet been established (*16*). Prevention strategies should always include education of workers and management.

Expanded activities concerning occupational dermatologic conditions include improved methods for surveillance of occupational skin disease and vigorous research in dermatotoxicology to identify preventable risk factors and facilitate effective interventions at early stages.

Reported by Div of Periodic Surveys and Supplementary Data Systems, Office of Occupational Health and Safety Statistics, Bureau of Labor Statistics, US Dept of Labor; Occupational Dermatology Activity, Industrywide Studies Br, Surveillance Br, Div of Surveillance, Hazard Evaluations, and Field Studies, Data Analysis Section, Div of Safety Research, National Institute for Occupational Safety and Health, CDC.

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TABLE 3. Cases and incidence rate of occupational dermatologic conditions, in a segment of workers, by major industrial divisions — United States, 1984[*]

Industrial division	No.	Incidence rate[†]
Agriculture/forestry/fishing	2,233	28.5
Manufacturing	23,017	12.3
Construction	2,456	6.6
Services	7,973	5.0
Transportation/utilities	2,114	4.3
Mining	393	4.0
Wholesale/retail trade	3,770	2.1
Finance/insurance/real estate	563	1.1

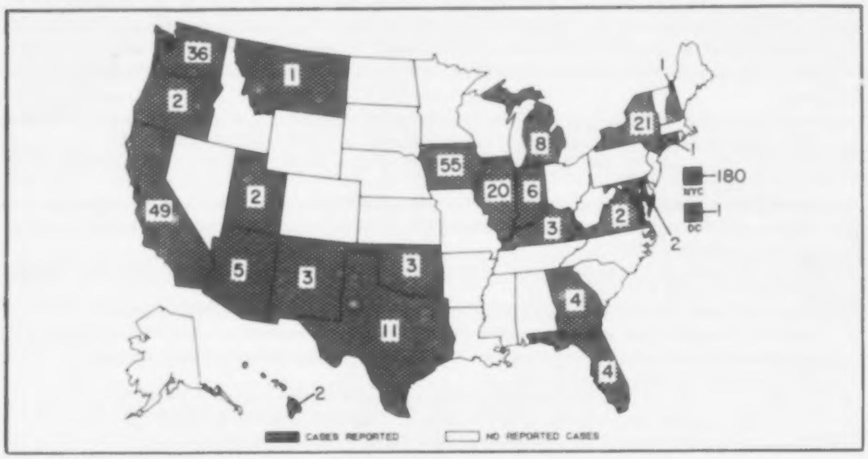
[*] Bureau of Labor Statistics Annual Survey.

[†] Per 10,000 full-time workers (2,000 employment hours/full-time worker/year).

Erratum: Vol. 35, No. 33

p. 525 In the article, "Measles—United States, First 26 Weeks, 1986," the percentages in the second sentence of the last paragraph of the editorial note on page 533 are incorrect. The sentence should begin: Since the percentage of preventable cases increased to 35.8% this year from 25.9% in 1985, further improvement . . . .

FIGURE I. Reported measles cases — United States, weeks 31-34, 1986



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35/36

CENTERS FOR DISEASE CONTROL

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MORBIDITY AND MORTALITY WEEKLY REPORT

September 12, 1986 / Vol. 35 / No. 36

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Current Trends

Declining Anemia Prevalence among Children Enrolled in Public Nutrition and Health Programs — Selected States, 1975-1985

The Pediatric Nutrition Surveillance System (PNSS) was established by CDC in 1974 to monitor the growth and hematologic status of children from low-income families participating in such programs as the Special Supplemental Food Program for Women, Infants, and Children (WIC)*; Early Periodic Screening, Detection, and Treatment; and publicly funded maternal- and child-health clinics. The hematologic data collected since 1975 from the states participating in PNSS have demonstrated a steady decline in the prevalence of childhood anemia (*1,2*).

The number of states participating in the surveillance system has increased from five in 1974 to 34 in 1986. Since this changing composition could have influenced the observed anemia trend, data from six states (Arizona, Louisiana, Kentucky, Montana, Oregon, and Tennessee) that have consistently participated in the PNSS since 1975 were analyzed. In these analyses, the following age-specific hemoglobin (Hgb) and hematocrit (Hct) levels were used as cutpoints to define anemia: age 6-23 months, Hgb less than 10.3 gm/dl or Hct less than 31%; age 24-59 months, Hgb less than 10.6 gm/dl or Hct less than 32%; age 60-83 months, Hgb less than 11.0 gm/dl or Hct less than 33%. These cutpoints, which are 0.6 gm/dl Hgb or 2% Hct lower than the commonly used clinical criteria (*3*), were chosen to avoid inclusion of children with borderline anemia.

Between 1975 and 1985, data on 1,680,740 Hgb or Hct measurements obtained from 499,759 children aged 6 months to 5 years were reported from the six states. The majority (83%) of these measurements were from children participating in WIC programs. Overall, the prevalence of anemia declined from 7.8% in 1975 to 2.9% in 1985 (Figure 1). Age-specific analysis using 6-month age intervals demonstrated that the decline occurred among all age groups. In general, anemia prevalences were lower among children seen at follow-up visits than among children of the same age seen for initial visits, although both prevalences declined over the decade.

Reported by Office of Nutrition Svcs, Arizona Dept of Health Svcs; Nutrition Br, Dept of Health Svcs, Div of Maternal and Child Health, Kentucky Cabinet of Human Resources; Nutrition Section, Office of Preven-

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*The WIC program, designed to provide nutrition education and specific foods to children up to age 5, lactating mothers, and pregnant and postpartum women, is closely associated with health-care delivery services.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES / PUBLIC HEALTH SERVICE

HE 20.7009:

Anemia – Continued

tive and Public Health Svcs, Louisiana Dept of Health and Human Resources; Nutrition/WIC, Clinical Programs Bureau, Health Sciences and Medical Facilities Div, Montana State Dept of Health and Environmental Sciences; WIC Program, Oregon State Health Div; Nutrition and Supplemental Food Programs, Tennessee Dept of Health and Environment; Div of Nutrition, Center for Health Promotion and Education, CDC.

Editorial Note: The prevalence of anemia among children from lower-income families residing in the six selected states with consistent participation in the PNSS declined by 60% between 1975 and 1985. Because of the magnitude and consistency of the decline, and the relatively constant family income criteria used for enrollment in WIC and other public health programs, the decrease in anemia is unlikely to be related to changes in the socioeconomic background of children included in the PNSS. Instead, the changes are probably related to improvements in iron nutrition during infancy and early childhood, which have resulted in lower levels of iron deficiency anemia, the most common form of childhood anemia in the United States (*4*). In view of the decline in anemia prevalence noted at initial screening visits, at least some of the decline appears independent of participation in public health programs. However, the even lower prevalence of anemia observed at follow-up visits suggests that WIC and other public programs also play a role in the decrease of anemia prevalence (*5*).

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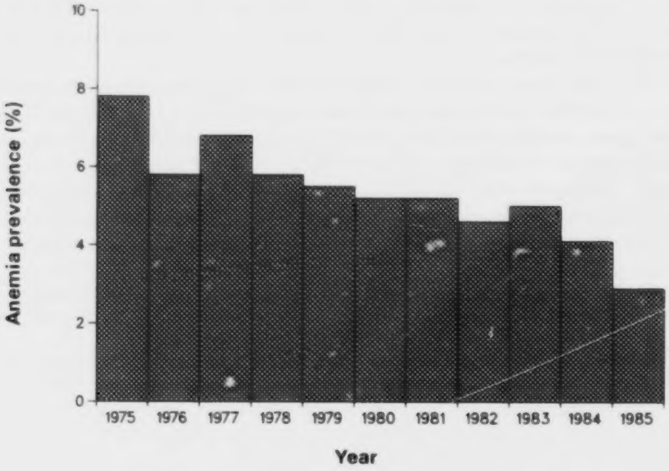
FIGURE 1. Annual anemia prevalence based on low hemoglobin or low hematocrit measurements for children seen at public nutrition or health clinics — six selected states, 1975-1985



Epidemiologic Notes and Reports

Outbreak of Malaria Imported from Kenya

Malaria remains an important problem for U.S. travelers to areas in Africa with chloroquine-resistant *Plasmodium falciparum*, as illustrated by the following report:

On June 26, 1986, a 29-year-old resident of Louisiana became ill en route to the United States from Nairobi, Kenya. He was admitted to a hospital in Shreveport, Louisiana, with a diagnosis of *P. falciparum* malaria on June 28. By June 30, seven additional persons with malaria-like symptoms were admitted to three Shreveport hospitals. All patients received medical care within 2 days of the onset of illness; *P. falciparum* parasites were identified in each patient's blood smears within 2 days after being seen by a physician. All were treated promptly and successfully with quinine and tetracycline.

The eight patients were part of a 10-member church group from Shreveport that had visited Rusinga Island in Lake Victoria in western Kenya June 14-21 and Masai Mara gamepark June 21-23. They had departed for the United States from Nairobi on June 24. All members of the group had taken 500 mg chloroquine weekly as prophylaxis, beginning at least 6 days before their departure for Kenya. Onset of malaria symptoms began 1-6 days after the last chloroquine dose. Analyses of whole-blood specimens obtained when the patients presented at the hospitals documented concentrations of chloroquine (range 75-444 ppb) and desethylchloroquine (range 19-146 ppb), consistent with their prophylaxis histories.

Malaria parasites were not detected in the blood of the two members of the group who did not develop symptoms. One of these persons had been taking 100 mg of tetracycline daily for acne. The remaining uninfected person had reportedly applied insect repellents to exposed areas of the skin more intensively and regularly than had other members of the group.

Reported by R Alsup, MD, J Snyder, MD, A Borne, MD, B Williams, MD, Shreveport, J Mathison, MD, State Epidemiologist, Louisiana Dept of Health and Human Resources; Malaria Br, Div of Parasitic Diseases, Center for Infectious Diseases, CDC.

Editorial Note: Chloroquine-resistant *P. falciparum* in Kenya and Tanzania was first documented in 1978 (*1*) and has spread through much of eastern, southern, and central Africa (*2*). The estimated attack rate of *P. falciparum* malaria among U.S. travelers returning from Kenya has increased from 21 cases per 100,000 travelers in 1978 to 189/100,000 in 1985. The increased risk of malaria infection for U.S. travelers to Kenya has been attributed to the spread of resistance to chloroquine (*3*).

The 80% attack rate in the Louisiana group was considerably higher than that experienced by most U.S. travelers to Kenya. Malaria transmission in Kenya was particularly intense in June, following the rainy season in April and May. Also, the highly malarious areas in western Kenya visited by this group are not generally frequented by U.S. tourists.

The infections acquired in this episode resolved favorably because medical care was obtained early; the diagnosis was made quickly; and effective therapy was given promptly. A review of fatal *P. falciparum* infections among U.S. citizens indicated that lack of prompt and adequate medical care contributed to the fatal outcomes (*5*).

Although all patients in the Louisiana group had used chemoprophylaxis, and chloroquine may not prevent parasitemia and illness, it does appear to moderate the illness and reduce the risk of fatal *P. falciparum* infection (*5,6*). Therefore, it is important that travelers continue to use chloroquine as a prophylactic drug, despite its reduced efficacy to prevent a *P. falciparum* infection in some countries with chloroquine-resistant strains. Susceptible and resistant strains of *P. falciparum* often coexist in the same area, and chloroquine remains an effective drug for prophylaxis of malaria caused by *P. vivax*, *P. ovale*, and *P. malariae*.

Malaria – Continued

Current CDC prophylaxis guidelines recommend use of weekly chloroquine for short-term travelers to countries with chloroquine-resistant *P. falciparum*. In addition, such travelers (except those with histories of sulfonamide intolerance) should also carry one or more treatment doses of Fansidar® with them (adult dosage, three tablets as a single dose) to be taken promptly in the event of a febrile illness during their travel when medical care is not readily available. Prophylaxis with weekly Fansidar® (in addition to chloroquine) may be considered for travelers who will be at very high risk of infection over a long period without access to medical care. If travelers become ill after their return to the United States, medical care should be sought promptly, and the physician should be informed of the recent travel. Doxycycline *alone* taken daily during travel and for 6 weeks after leaving the malarious area is an alternative to the regimen indicated above for short-term travel to areas with chloroquine-resistant *P. falciparum* (adult dose 100 mg daily). It is particularly appropriate for individuals with histories of sulfonamide intolerance (*4*).

(Continued on page 573)

TABLE I. Summary – cases specified notifiable diseases, United States

Disease	36th Week Ending			Cumulative, 36th Week Ending		
	Sept. 6, 1986	Sept. 7, 1985	Median 1981-1985	Sept. 6, 1986	Sept. 7, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	145	140	N	8,499	5,279	N
Aseptic meningitis	295	418	357	5,866	5,416	5,416
Encephalitis: Primary (arthropod-borne & unspec.)	35	40	66	689	768	893
Post-infectious	2	4	2	76	97	67
Gonorrhea: Civilian	12,012	17,219	17,664	594,805	603,153	615,117
Military	216	342	492	11,365	14,591	16,728
Hepatitis: Type A	414	459	421	14,924	15,040	15,040
Type B	409	565	479	17,744	17,598	16,358
Non A, Non B	63	76	N	2,443	2,829	N
Unspecified	56	108	135	3,142	3,914	4,903
Legionellosis	16	14	N	437	487	N
Leprosy	3	3	3	178	265	172
Malaria	12	31	31	719	709	709
Measles: Total*	37	29	20	5,345	2,417	2,306
Indigenous	35	19	N	5,100	2,010	N
Imported	2	10	N	245	407	N
Meningococcal infections: Total	26	36	32	1,806	1,734	2,032
Civilian	26	36	32	1,804	1,728	2,028
Military	-	-	-	2	6	10
Mumps	119	24	24	3,445	2,194	2,421
Pertussis	71	159	107	2,084	1,998	1,534
Rubella (German measles)	9	2	17	402	543	770
Syphilis (Primary & Secondary): Civilian	294	391	458	17,710	18,329	20,900
Military	1	2	7	114	121	257
Toxic Shock syndrome	5	8	N	246	271	N
Tuberculosis	309	357	407	14,864	14,613	16,005
Tularemia	4	6	8	98	124	181
Typhoid fever	5	15	11	195	241	272
Typhus fever, tick-borne (RMSF)	17	27	29	565	503	806
Rabies, animal	90	122	132	3,816	3,697	4,420

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1986		Cum. 1986
Anthrax	-	Leptospirosis (Mass. 1)	25
Botulism: Foodborne	6	Plague	8
Infant	37	Poliomyelitis, Paralytic	-
Other	1	Psittacosis (Minn. 1, Colo. 2)	74
Brucellosis (Mich. 1)	55	Rabies, human	-
Cholera	-	Tetanus (Ala. 1, La. 2)	47
Congenital rubella syndrome (N.Y. City 2)	4	Trichinosis	21
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	34
Diphtheria	-		

*One of the 37 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending September 6, 1986 and September 7, 1985 (36th Week)

Reporting Area	AIDS	Aseptic Menin-gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel-losis	Leprosy
			Primary	Post-in-fectious			A	B	NA,NB	Unspeci-fied		
	Cum. 1986	1986	Cum. 1986	Cum. 1986	Cum. 1986	Cum. 1985	1986	1986	1986	1986	1986	Cum. 1986
UNITED STATES	8,499	295	689	78	594,805	605,153	414	409	63	56	16	178
NEW ENGLAND	375	10	18	3	15,310	15,809	20	40	2	10	-	6
Maine	14	2	-	-	623	776	1	6	-	-	-	-
N.H.	10	-	2	-	384	405	-	-	-	1	-	-
Vt.	4	1	3	2	174	221	-	1	-	-	-	-
Mass.	203	4	4	-	6,091	6,083	5	17	1	9	-	6
R.I.	21	-	-	-	1,188	1,260	-	1	-	-	-	-
Conn.	123	3	9	1	6,850	7,064	14	15	1	-	-	-
MID. ATLANTIC	3,267	41	75	7	100,551	87,130	9	11	2	-	-	12
Upstate N.Y.	299	35	27	4	11,966	11,659	9	11	2	-	-	1
N.Y. City	2,205	-	15	-	57,447	43,733	-	-	-	-	-	10
N.J.	529	6	10	-	13,404	13,119	-	-	-	-	-	-
Pa.	234	-	23	3	17,734	18,619	-	-	-	-	-	1
E.N. CENTRAL	528	92	196	11	77,021	80,231	25	25	1	1	5	4
Ohio	132	37	67	3	19,702	20,388	8	13	-	-	2	-
Ind.	50	U	42	3	8,060	8,679	U	U	U	U	U	-
Ill.	243	18	41	4	21,463	20,923	-	-	-	-	-	3
Mich.	78	37	36	1	24,870	22,357	17	12	1	1	3	1
Wis.	25	-	10	-	2,926	7,884	-	-	-	-	-	-
W.N. CENTRAL	168	4	37	8	25,581	28,190	16	21	4	-	2	2
Minn.	60	1	17	-	3,730	4,168	7	11	3	-	1	1
Iowa	12	2	10	-	2,637	2,997	1	4	1	-	-	-
Mo.	60	1	1	-	12,726	13,559	1	3	-	-	-	-
N. Dak.	2	-	1	-	224	190	-	-	-	-	-	-
S. Dak.	1	-	7	-	532	527	2	-	-	-	-	-
Nebr.	8	-	-	1	1,986	2,481	3	3	-	-	1	-
Kans.	25	-	1	7	3,746	4,268	2	-	-	-	-	1
S. ATLANTIC	1,192	46	92	26	155,225	156,890	47	111	12	5	6	2
Del.	18	-	6	-	2,534	2,894	5	-	-	-	-	-
Md.	123	9	25	1	18,482	20,188	5	32	5	2	1	-
D.C.	151	-	-	1	11,561	10,508	-	-	-	-	-	-
Va.	108	13	28	1	12,652	12,126	4	15	1	-	-	1
W. Va.	7	4	19	-	1,544	1,821	2	-	-	-	-	-
N.C.	47	1	12	1	24,316	24,332	-	11	2	-	-	-
S.C.	29	2	-	-	13,593	15,118	-	12	-	1	-	-
Ga.	170	9	-	1	26,292	31,615	4	20	2	-	3	-
Fla.	539	8	2	21	44,251	37,288	27	21	2	2	2	1
E.S. CENTRAL	111	25	46	3	48,650	51,151	10	26	1	1	1	1
Ky.	25	11	22	1	5,358	5,803	1	4	-	-	-	-
Tenn.	53	8	4	1	18,761	19,551	4	12	1	1	-	-
Ala.	19	5	19	1	13,919	15,698	1	5	-	-	1	1
Miss.	14	1	1	-	10,612	10,099	4	5	-	-	-	-
W.S. CENTRAL	495	30	91	8	70,972	76,234	46	18	6	11	-	16
Ark.	22	-	-	2	6,635	7,333	5	1	3	-	-	-
La.	113	3	3	-	12,706	14,689	7	1	-	3	-	1
Okla.	27	4	16	-	8,097	8,216	4	-	-	2	-	-
Tex.	333	23	72	6	43,534	45,996	30	16	3	6	-	15
MOUNTAIN	210	6	24	1	17,739	18,771	72	54	6	5	1	11
Mont.	4	1	-	1	498	528	1	-	1	-	-	-
Idaho	2	-	-	-	558	573	16	-	1	-	-	-
Wyo.	4	-	2	-	386	432	-	-	-	-	-	-
Colo.	97	3	4	-	4,630	5,525	3	7	-	1	-	3
N. Mex.	13	-	3	-	1,753	2,150	21	13	-	-	1	-
Ariz.	53	-	8	-	5,757	5,483	28	29	3	4	-	5
Utah	13	1	5	-	757	860	-	-	-	-	-	1
Nev.	24	1	2	-	3,400	3,220	3	5	1	-	-	2
PACIFIC	2,153	41	110	11	83,756	88,747	169	103	29	23	1	124
Wash.	93	7	12	-	6,326	6,696	36	32	5	6	-	14
Oreg.	47	-	-	-	3,496	4,408	31	22	5	-	-	-
Calif.	1,968	28	95	11	71,128	74,336	101	46	19	17	-	87
Alaska	11	3	3	-	1,893	2,050	-	2	-	-	1	-
Hawaii	34	3	-	-	913	1,257	1	1	-	-	-	23
Guam	-	-	-	-	132	143	2	-	-	-	-	1
P.R.	76	7	5	-	1,599	2,289	-	8	-	1	-	7
V.I.	3	U	-	-	166	332	U	U	U	U	U	-
Pac. Trust Terr.	-	-	-	-	326	655	1	-	-	3	-	39
Amer. Samoa	-	-	-	-	31	-	2	-	-	-	-	2

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending September 6, 1986 and September 7, 1985 (36th Week)

Reporting Area	Malaria	Measles (Rubeola)					Meningococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	719	35	5,100	2	245	2,417	1,806	119	3,445	71	2,084	1,998	9	402	543
NEW ENGLAND	39	-	77	-	8	126	125	-	52	5	118	93	-	9	12
Maine	2	-	10	-	-	1	23	-	-	-	2	5	-	-	-
N H	2	-	41	-	-	-	6	-	12	1	59	38	-	1	2
Vt	1	-	-	-	-	-	15	-	3	-	3	3	-	1	-
Mass	20	-	23	-	6	118	29	-	9	-	28	28	-	4	6
R I	5	-	2	-	-	-	17	-	9	1	5	12	-	2	-
Conn	9	-	1	-	2	7	35	-	19	3	21	7	-	1	4
MID ATLANTIC	96	-	1,639	-	23	204	288	3	151	8	146	127	-	31	216
Upstate N Y	34	-	68	-	19	85	97	1	55	5	94	66	-	23	17
N Y City	25	-	644	-	2	63	57	-	17	-	3	18	-	5	174
N J	18	-	905	-	-	28	30	1	37	3	14	4	-	3	11
Pa	19	-	22	-	2	28	104	1	42	-	35	39	-	-	14
E N CENTRAL	45	8	1,005	1	17	515	248	106	2,363	2	269	446	2	39	29
Ohio	13	-	-	-	10	54	100	-	100	-	117	38	-	1	-
Ind	2	U	17	U	-	57	20	U	31	U	22	135	U	-	1
Ill	15	6	668	1†	4	290	88	104	1,780	-	29	46	2	28	12
Mich	13	2	58	-	-	55	34	2	251	2	26	33	-	8	15
Wis	2	-	262	-	3	59	6	-	201	-	75	194	-	2	1
W N CENTRAL	23	-	322	-	17	11	87	-	85	6	186	140	-	10	19
Minn	6	-	45	-	4	6	17	-	1	1	45	70	-	-	2
Iowa	1	-	133	-	1	-	11	-	24	5	18	5	-	1	1
Mo	10	-	25	-	6	2	30	-	15	-	12	27	-	1	7
N Dak	-	-	26	-	1	2	-	-	3	-	4	9	-	1	2
S Dak	-	-	-	-	-	-	4	-	1	-	14	2	-	-	-
Nebr	4	-	-	-	-	-	10	-	-	-	1	4	-	-	-
Kans	2	-	94	-	5	1	15	-	41	-	92	23	-	7	7
S ATLANTIC	88	15	551	-	56	296	330	2	161	22	613	402	-	10	50
Del	1	-	1	-	-	-	2	-	-	-	222	-	-	-	1
Md	12	1	26	-	9	100	44	2	17	1	137	242	-	-	6
D C	1	-	-	-	2	15	4	-	-	-	-	-	-	-	-
Va	22	-	36	-	24	26	56	-	34	3	33	11	-	-	2
W Va	4	-	2	-	-	33	3	-	39	-	23	4	-	-	9
N C	4	-	2	-	1	9	56	-	14	17	58	20	-	-	-
S C	6	-	274	-	-	3	29	-	12	-	13	2	-	-	3
Ga	9	-	79	-	14	8	50	-	15	1	103	76	-	-	-
Fla	29	14	131	-	6	102	86	-	30	-	24	47	-	10	29
E S CENTRAL	16	1	58	1	9	7	100	2	27	1	43	33	-	4	2
Ky	4	-	-	-	6	5	24	-	6	-	5	6	-	4	2
Tenn	1	1	55	-	1	1	36	1	17	-	15	16	-	-	-
Ala	7	-	1	-	1	-	28	1	3	1	23	7	-	-	-
Miss	4	-	2	1§	1	1	12	-	1	-	-	4	-	-	-
W S CENTRAL	73	1	597	-	36	425	159	-	152	2	171	272	-	57	32
Ark	-	-	276	-	2	-	22	-	7	-	11	12	-	-	1
La	14	-	4	-	-	42	22	-	2	-	11	11	-	-	-
Okla	9	-	37	-	2	1	21	N	N	2	95	132	-	-	1
Tex	50	1	280	-	32	382	94	-	143	-	54	117	-	57	30
MOUNTAIN	29	2	299	-	26	529	91	2	208	7	207	146	1	23	5
Mont	-	-	-	-	8	137	8	-	5	1	13	8	-	2	-
Idaho	1	-	1	-	-	137	3	1	7	-	33	9	-	-	1
Wyo	-	-	-	-	-	-	2	-	-	-	4	-	-	1	-
Colo	8	-	2	-	5	13	15	-	12	4	57	51	-	1	-
N Mex	5	-	32	-	7	6	9	N	N	1	20	11	-	-	2
Ariz	10	-	252	-	6	236	19	1	169	1	48	27	-	2	1
Utah	2	2	11	-	-	-	9	-	10	-	29	40	1	14	-
Nev	3	-	1	-	-	-	26	-	5	-	3	-	-	3	1
PACIFIC	310	8	552	-	53	304	378	4	246	18	331	339	6	219	178
Wash	22	-	158	-	25	66	54	1	8	16	99	58	-	14	11
Oreg	15	-	4	-	4	4	31	N	N	-	10	40	-	1	1
Calif	272	8	369	-	22	213	280	2	214	1	211	200	5	199	117
Alaska	-	-	-	-	-	-	11	-	6	-	2	29	-	-	1
Hawaii	1	-	21	-	2	21	2	1	18	1	9	12	1	5	48
Guam	1	-	4	-	1	11	-	-	4	-	-	-	-	3	2
P R	4	-	33	-	-	54	2	-	26	-	13	10	-	60	25
V I	-	U	-	U	-	10	-	U	13	U	-	-	U	-	-
Pac Trust Terr	-	-	-	-	-	-	1	3	10	-	-	-	-	2	-
Amer Samoa	-	-	2	-	-	-	-	-	4	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations

N Not notifiable U Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending September 6, 1986 and September 7, 1985 (36th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic shock Syndrome	Tuberculosis		Tularemia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	17,710	18,329	5	14,864	14,613	98	195	565	3,816
NEW ENGLAND	331	370	-	486	505	1	11	10	5
Maine	15	11	-	32	35	-	-	-	-
N.H.	10	9	-	19	16	-	-	1	-
Vt.	8	5	-	13	4	-	-	-	-
Mass.	176	184	-	255	303	1	9	3	-
R.I.	18	12	-	40	38	-	-	3	3
Conn.	104	149	-	127	109	-	2	3	2
MID ATLANTIC	2,556	2,420	-	3,009	2,671	1	15	25	457
Upstate N.Y.	116	181	-	430	466	-	3	15	59
N.Y. City	1,447	1,495	-	1,559	1,286	-	6	5	-
N.J.	461	483	-	518	378	1	5	2	16
Pa.	532	261	-	502	541	-	1	3	382
E.N. CENTRAL	687	733	1	1,777	1,804	-	16	51	97
Ohio	94	103	-	320	324	-	4	46	9
Ind.	80	67	U	181	220	-	2	-	14
Ill.	351	362	-	756	781	-	2	2	28
Mich.	125	154	1	435	371	-	6	3	21
Wis.	37	47	-	85	108	-	2	-	25
W.N. CENTRAL	153	156	1	432	407	29	8	39	615
Minn.	27	32	1	107	86	-	1	1	90
Iowa	6	17	-	35	44	1	-	1	137
Mo.	81	77	-	214	199	23	6	20	64
N. Dak.	3	2	-	6	8	-	-	1	132
S. Dak.	4	5	-	18	19	2	-	6	126
Nebr.	11	7	-	7	13	1	-	4	22
Kans.	21	16	-	45	38	2	1	6	44
S. ATLANTIC	5,312	5,411	-	2,820	2,962	9	28	261	918
Del.	36	28	-	27	27	-	1	1	-
Md.	295	320	-	218	262	2	8	28	459
D.C.	211	241	-	94	115	1	2	-	26
Va.	257	210	-	233	260	2	6	44	126
W. Va.	18	15	-	85	80	-	3	7	31
N.C.	345	468	-	383	375	1	4	90	7
S.C.	464	564	-	378	358	-	-	60	42
Ga.	1,043	946	-	437	503	3	-	30	146
Fla.	2,643	2,619	-	965	982	-	4	1	81
E.S. CENTRAL	1,187	1,391	-	1,295	1,289	8	2	74	245
Ky.	54	45	-	307	301	3	-	17	67
Tenn.	421	429	-	388	375	4	1	33	97
Ala.	382	441	-	404	388	1	-	14	79
Miss.	330	476	-	196	225	-	1	10	2
W.S. CENTRAL	3,560	4,198	1	1,902	1,789	43	15	96	548
Ark.	167	218	-	252	199	32	-	5	125
La.	605	727	-	320	264	1	1	-	16
Okla.	95	123	1	184	177	6	1	76	50
Tex.	2,693	3,130	-	1,146	1,149	4	13	15	357
MOUNTAIN	408	495	2	353	376	6	9	8	532
Mont.	6	5	-	20	46	1	1	4	176
Idaho	10	4	-	16	17	-	-	-	4
Wyo.	1	7	-	-	5	-	-	1	226
Colo.	100	121	1	30	43	2	1	3	23
N. Mex.	52	95	-	69	67	1	-	-	6
Ariz.	167	230	1	168	164	-	4	-	87
Utah	12	5	-	28	11	1	2	-	3
Nev.	60	28	-	22	23	1	1	-	7
PACIFIC	3,516	3,155	-	2,790	2,810	1	91	1	399
Wash.	99	82	-	134	161	-	3	-	5
Oreg.	75	64	-	97	90	-	-	-	-
Calif.	3,316	2,957	-	2,391	2,359	-	84	1	386
Alaska	1	2	-	37	71	1	1	-	8
Hawaii	25	50	-	131	129	-	3	-	-
Guam	1	2	-	34	31	-	1	-	-
P.R.	605	548	-	231	240	-	5	-	35
V.I.	-	1	U	1	1	-	-	-	-
Pac. Trust Terr.	196	92	-	50	44	-	43	-	-
Amer. Samoa	-	-	-	5	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending September 6, 1986 (36th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	588	401	114	44	8	21	30
Boston, Mass	136	77	40	12	3	4	10
Bridgeport, Conn	53	42	6	4	-	1	3
Cambridge, Mass	21	16	5	-	-	-	2
Fall River, Mass	19	15	4	-	-	-	-
Hartford, Conn	44	26	11	4	2	1	1
Lowell, Mass	35	23	7	4	1	-	1
Lynn, Mass	20	15	2	2	-	1	1
New Bedford, Mass	16	14	1	1	-	-	2
New Haven, Conn	42	31	4	4	1	2	1
Providence, R.I.	69	51	8	3	-	7	4
Somerville, Mass	4	3	1	-	-	-	-
Springfield, Mass	38	21	9	5	-	3	-
Waterbury, Conn	33	27	4	2	-	-	2
Worcester, Mass	58	40	12	3	1	2	3
MID ATLANTIC	2,355	1,488	513	234	60	59	110
Albany, N.Y.	46	33	7	2	2	2	2
Allentown, Pa	15	13	2	-	-	-	-
Buffalo, N.Y.	146	93	39	5	3	6	14
Camden, N.J.	46	25	10	4	7	-	1
Elizabeth, N.J.	18	14	3	1	-	-	-
Erie, Pa.†	41	33	6	2	-	-	4
Jersey City, N.J.	41	23	11	7	-	-	1
N.Y. City, N.Y.	1,164	701	263	145	28	27	51
Newark, N.J.	63	30	14	12	2	4	3
Paterson, N.J.	23	6	9	5	3	-	2
Philadelphia, Pa	397	267	81	30	6	13	17
Pittsburgh, Pa.†	28	22	3	3	-	-	1
Reading, Pa	27	19	6	1	1	-	4
Rochester, N.Y.	107	75	19	6	5	2	6
Schenectady, N.Y.	22	17	4	-	1	-	-
Scranton, Pa.†	26	16	9	1	-	-	-
Syracuse, N.Y.	57	37	13	4	1	2	-
Trenton, N.J.	37	22	8	4	1	2	1
Utica, N.Y.	24	19	4	1	-	-	1
Yonkers, N.Y.	27	23	2	1	-	1	2
E.N. CENTRAL	2,008	1,282	450	142	55	79	65
Akron, Ohio	[illegible]	23	9	5	1	4	-
Canton, Ohio	[illegible]	19	3	2	1	1	1
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	123	73	36	10	3	1	7
Cleveland, Ohio	134	87	28	9	4	6	1
Columbus, Ohio	127	72	30	13	2	10	2
Dayton, Ohio	80	59	13	4	2	2	3
Detroit, Mich	208	116	52	19	15	6	5
Evansville, Ind	30	22	6	-	-	2	-
Fort Wayne, Ind	50	35	9	4	-	2	5
Gary, Ind	18	12	6	-	-	-	-
Grand Rapids, Mich	52	32	11	3	3	3	1
Indianapolis, Ind	137	84	30	9	3	11	6
Madison, Wis	47	31	6	4	3	3	3
Milwaukee, Wis	118	76	26	7	6	3	-
Peoria, Ill	32	22	7	3	-	-	4
Rockford, Ill	40	30	9	1	-	-	1
South Bend, Ind	31	24	7	-	-	-	2
Toledo, Ohio	89	64	20	1	2	2	6
Youngstown, Ohio	60	39	17	3	-	1	2
W.N. CENTRAL	606	394	131	38	22	21	25
Des Moines, Iowa	36	25	9	1	1	-	-
Duluth, Minn	23	19	4	-	-	-	-
Kansas City, Kans	31	16	12	1	1	1	1
Kansas City, Mo	117	67	30	13	4	3	7
Lincoln, Nebr	23	17	3	3	-	-	1
Minneapolis, Minn	94	62	13	5	7	7	5
Omaha, Nebr	52	37	10	3	2	-	4
St Louis, Mo	144	97	27	7	5	8	6
St Paul, Minn	37	24	9	2	1	1	-
Wichita, Kans	49	30	14	3	1	1	1
S. ATLANTIC	1,075	675	240	99	33	28	41
Atlanta, Ga	108	64	25	12	7	-	-
Baltimore, Md	189	102	56	21	6	4	7
Charlotte, N.C.	68	43	20	2	1	2	3
Jacksonville, Fla	67	43	14	5	2	3	1
Miami, Fla	99	58	20	13	5	3	-
Norfolk, Va	39	24	9	2	2	2	1
Richmond, Va	80	51	18	6	2	3	9
Savannah, Ga	63	50	8	3	2	-	4
St Petersburg, Fla	115	98	10	4	2	1	6
Tampa, Fla	70	41	20	7	1	1	4
Washington, D.C.	160	89	37	23	2	9	5
Wilmington, Del	17	12	3	1	1	-	1
E.S. CENTRAL	638	407	132	55	19	25	22
Birmingham, Ala	85	51	18	7	4	5	1
Chattanooga, Tenn	50	28	11	5	1	5	2
Knoxville, Tenn	103	64	18	14	7	-	4
Louisville, Ky	85	49	21	7	1	7	5
Memphis, Tenn §	157	103	34	10	5	5	7
Mobile, Ala	43	32	7	3	-	1	-
Montgomery, Ala	30	20	7	2	-	1	-
Nashville, Tenn	85	60	16	7	1	1	3
W.S. CENTRAL	1,040	606	239	105	41	49	31
Austin, Tex	56	39	8	6	2	1	4
Baton Rouge, La	44	29	13	-	1	1	1
Corpus Christi, Tex §	39	22	7	7	2	1	-
Dallas, Tex	161	81	37	21	9	13	2
El Paso, Tex	40	20	11	5	2	2	-
Fort Worth, Tex	82	45	19	5	4	9	3
Houston, Tex	249	137	65	29	9	9	9
Little Rock, Ark	49	26	13	7	1	2	6
New Orleans, La	83	59	12	6	2	4	-
San Antonio, Tex	136	83	29	16	4	4	4
Shreveport, La	41	27	8	1	4	1	-
Tulsa, Okla	60	38	17	2	1	2	2
MOUNTAIN	572	333	129	50	37	23	19
Albuquerque, N.Mex	71	45	15	6	4	1	2
Colo. Springs, Colo	36	25	5	2	2	2	4
Denver, Colo	97	50	24	10	8	5	-
Las Vegas, Nev	75	35	18	10	8	4	4
Ogden, Utah	11	7	1	1	1	1	1
Phoenix, Ariz	128	73	31	11	5	8	-
Pueblo, Colo	15	10	4	1	-	-	2
Salt Lake City, Utah	41	15	14	5	6	1	-
Tucson, Ariz	98	73	17	4	3	1	6
PACIFIC	1,607	1,017	340	137	55	52	80
Berkeley, Calif	17	12	4	1	-	-	1
Fresno, Calif	62	40	13	5	1	3	1
Glendale, Calif	23	18	3	2	-	-	-
Honolulu, Hawaii	63	38	19	2	1	3	6
Long Beach, Calif	79	57	20	1	1	-	3
Los Angeles, Calif	452	281	89	51	18	9	8
Oakland, Calif	70	42	11	12	4	1	7
Pasadena, Calif §	30	22	5	1	-	2	1
Portland, Oreg	105	69	14	11	9	2	6
Sacramento, Calif	118	74	26	7	7	4	17
San Diego, Calif	101	60	23	7	2	8	8
San Francisco, Calif	137	85	30	14	-	8	2
San Jose, Calif	137	84	35	5	5	7	8
Seattle, Wash	124	71	34	11	7	1	5
Spokane, Wash	55	39	10	3	-	3	6
Tacoma, Wash	34	25	4	4	-	1	1
TOTAL	10,489††	6,603	2,288	904	330	357	423

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza.

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§ Data not available. Figures are estimates based on average of past 4 weeks.

Malaria – Continued

Because of the limited effectiveness of chloroquine prophylaxis in areas with chloroquine-resistant *P. falciparum*, travelers should be advised to take measures to limit contact with mosquitoes between dusk and dawn. It has been estimated that use of effective personal protective measures can reduce the risk of exposure 10-fold (*6*). Such measures include: using insect repellents containing N,N diethylmetatoluamide (DEET) on exposed areas of the skin; using pyrethrum-containing flying-insect spray in living and sleeping areas during evening and nighttime hours; using mosquito nets; remaining in well-screened areas; and wearing clothes that cover most of the body during evening and nighttime hours.

Detailed information regarding malaria prophylaxis and other health precautions is provided in the publication, "Health Information for International Travel, 1986" (*8*)*.

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*Available from the U.S. Government Printing Office, Washington, D.C., 20402.

International Notes

Chikungunya Fever among U.S. Peace Corps Volunteers — Republic of the Philippines

Three cases of chikungunya fever were diagnosed recently among U.S. Peace Corps volunteers stationed in the Republic of the Philippines. These are the first cases reported from the Philippines since 1968. The cases were diagnosed as part of a collaborative long-term infectious disease study by the U.S. Naval Medical Research Unit No. 2 and the U.S. Peace Corps in the Philippines.

The first patient, a 27-year-old male, was stationed in Mindanao, one of the southernmost islands of the Philippine archipelago. His illness occurred in June 1985 but was not diagnosed until October 1985. The second case occurred mid-November 1985 in a 31-year-old female stationed on Cebu, one of the islands that forms the central portion of the archipelago. The third case occurred in January 1986 in a 23-year-old female stationed on the island of Masbate, also in the central part of the country but north of Cebu.

Chikungunya Fever — Continued

All three cases were diagnosed using an IgM antibody-capture enzyme-linked immunosorbent assay (ELISA). Chikungunya virus was isolated from a blood sample obtained from one of the patients 3 days after onset of fever. The clinical presentations were typical of chikungunya fever and included acute onset of high fever, severe joint pain, and skin rash. The illnesses persisted 3-7 days, and all patients recovered uneventfully.

Chikungunya virus may have been introduced into the southern Philippines from Indonesia. The first case detected in the Philippines occurred in an area of Mindanao, Davao del Sur, which is approximately 200 km north of central Indonesia; the area is reportedly frequently visited by Indonesian traders and fishermen.

The full extent of epidemic activity in the Philippines is not known. One of the Peace Corps volunteer patients reported many cases of a chikungunya-like illness (locally termed "Chinese fever" or "Asian flu") in the Filipino population of the village where she lived. The potential for widespread activity is present because of the large population of susceptibles and the abundance of the vector, *Aedes aegypti*, particularly in large urban areas like Manila.

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Editorial Note: The word "chikungunya" is Swahili for "that which bends up," in reference to the stooped posture of patients afflicted with the severe joint pain associated with this disease. The disease was first recognized in epidemic form in East Africa in 1952-1953 (*1*). The etiologic agent, chikungunya virus, is arthropod-borne and has been placed in the family Togaviridae, genus *Alphavirus* (*2*). Human infections are acquired by the bite of infected *A. aegypti* mosquitoes, and epidemics are sustained by human-mosquito-human transmission. The epidemic cycle is thus similar to those of dengue and urban yellow fever.

Since 1954, the virus has been implicated as the cause of epidemics in Asian countries including the Philippines, Thailand, Cambodia, Vietnam, India, Burma, and Sri Lanka. Epidemics of chikungunya were documented in the Philippines in 1954, 1956, and 1968 (*3-4*). Serosurveys suggest that virus activity occurred in the central and southern part of the archipelago (*5*). Chikungunya virus has been isolated from humans and mosquitoes in eastern, southern, western, and central Africa and in southeastern Asia, where it has been responsible for illnesses in hundreds to thousands of individuals.

Chikungunya fever is characterized by sudden onset, chills and fever, headache, nausea, vomiting, arthralgia, and rash. In contrast to dengue, chikungunya is characterized by a briefer febrile episode, by persistent arthralgia in some cases, and by the absence of fatalities. However, similarities between clinical appearances of the two diseases probably account for misclassification and some underreporting of chikungunya fever in areas with endemic dengue; therefore, laboratory confirmation of reported cases is important. The IgM-capture ELISA used for diagnosis of these patients is especially useful in this regard (*6*).

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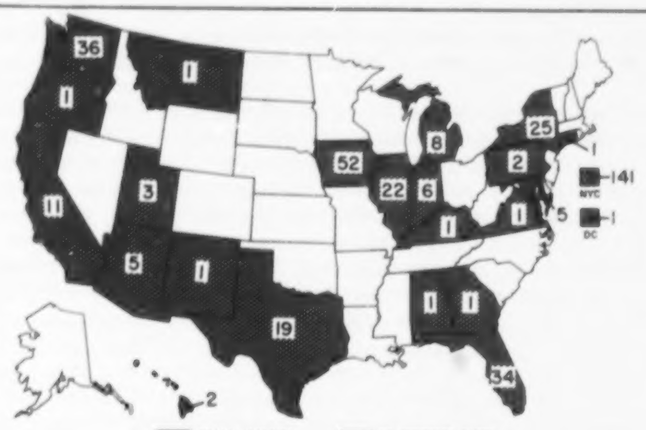
Notice to Readers

National Symposium: Prevention of Work-Related Diseases and Injuries

The second National Symposium on the Prevention of Leading Work-Related Diseases and Injuries will be held October 28-31, 1986, in Cincinnati, Ohio. The symposium is cosponsored by the Association of Schools of Public Health, the Association of University Programs in Occupational Health and Safety, and the National Institute for Occupational Safety and Health (NIOSH), CDC. Draft strategies for preventing reproductive disorders, neurotoxic disorders, noise-induced loss of hearing, dermatologic conditions, and psychologic disorders will be discussed and modified. Information may be obtained from the Association of Schools of Public Health, 1015 Fifteenth Street N.W., Suite 404, Washington, D.C., telephone (202) 842-4812, or from NIOSH, CDC, telephone (404) 329-3794.

FIGURE I. Reported measles cases — United States, weeks 32-35, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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CENTERS FOR DISEASE CONTROL

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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587 Tuberculosis and Acquired Immunodeficiency Syndrome — Florida

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Recommendation of the Immunization Practices Advisory Committee (ACIP)

New Recommended Schedule for Active Immunization of Normal Infants and Children

Until now, the recommended schedule for active immunization of normal infants and children called for administering combined measles-mumps-rubella (MMR) vaccine at 15 months and giving the fourth dose of Diphtheria and Tetanus Toxoids and Pertussis Vaccine (DTP) and the third dose of oral poliovirus vaccine (OPV) at 18 months (*1*). Two visits have been needed to receive these vaccines in the second year of life because the safety and efficacy of administering all three simultaneously had not been proven.* A large, randomized, double-blind trial has recently been completed (*2*), and sufficient data are now available to recommend the simultaneous administration of MMR, DTP, and OPV to all children 15 months old or older who are eligible to receive these vaccines (Table 1).

In this trial, serologic response and clinical reaction rates following primary immunization with MMR were compared in a test group of 405 children given MMR simultaneously with DTP and OPV and a control group of 410 children given MMR followed by doses of DTP and OPV vaccine 2 months later. Seroconversion rates to each MMR component exceeded 96% in both groups, and the geometric mean titers achieved against the other six antigens were also similar in both groups. Rates of most of the common vaccine-associated clinical reactions to DTP and MMR were not augmented by simultaneous administration of these two vaccines. Some minor side effects were reported more frequently in the simultaneous-administration group; however, these differences were judged to be related to artifacts of the study design rather than to differences in the safety of the two vaccine schedules.

Data from CDC's Monitoring System for Adverse Events Following Immunization (MSAEFI) have been reviewed, particularly the information from Idaho, Louisiana, and Tennessee, where policies to administer MMR, DTP, and OPV simultaneously have been in effect for periods ranging from several months to years. Although there are limitations to the use of the MSAEFI data set for this purpose, the evidence suggests no increased risk of reactions associated with the simultaneous administration of these antigens.

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*It should be noted that simultaneous administration of MMR, DTP, and OPV was previously recommended for children who were behind schedule in receiving their immunizations. This recommendation was based on the demonstrated safety and efficacy of other vaccine combinations (e.g., DTP and measles, or MMR and OPV).

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Although the overall implications of simultaneous administration have not been fully defined, it is anticipated that implementation of this new schedule will result in at least three benefits: (1) a decrease in the number of health-care-provider visits required for immunization during the second year of life, (2) an accompanying decrease in costs, and (3) an increase in the percentage of children who will be fully or partially immunized by 24 months of age.

Some health-care providers may continue to prefer administering MMR at 15 months followed by DTP and OPV at 18 months, especially for patients who are known to be compliant

TABLE 1. New recommended schedule for active immunization of normal infants and children[*]

Recommended age[†]	Vaccine(s)[§]	Comments
2 months	DTP-1[¶], OPV-1[**]	Can be given earlier in areas of high endemicity.
4 months	DTP-2, OPV-2	6-week to 2-month interval desired between OPV doses to avoid interference.
6 months	DTP-3	An additional dose of OPV at this time is optional for use in areas with a high risk of polio exposure.
15 months[††]	MMR,[§§] DTP-4, OPV-3	Completion of primary series of DTP and OPV.
24 months	HbPV[¶¶]	Can be given at 18-23 months for children in groups who are thought to be at increased risk of disease, e.g., day-care-center attendees.
4-6 years[***]	DTP-5, OPV-4	Preferably at or before school entry.
14-16 years	Td[†††]	Repeat every 10 years throughout life.

[*] See Reference 1 for the recommended immunization schedules for infants and children up to their seventh birthday not immunized at the recommended time in early infancy and for persons 7 years of age or older.

[†] These recommended ages should not be construed as absolute, i.e., 2 months can be 6-10 weeks, etc.

[§] For all products used, consult manufacturer's package enclosure for instructions for storage, handling, and administration. Immunobiologics prepared by different manufacturers may vary, and those of the same manufacturer may change from time to time. The package insert should be followed for a specific product.

[¶] DTP-Diphtheria and Tetanus Toxoids and Pertussis Vaccine Adsorbed.

[**] OPV-Poliovirus Vaccine Live Oral; contains poliovirus strains Types 1, 2, and 3.

[††] Provided at least 6 months have elapsed since DTP-3 or, if fewer than three DTPs have been received, at least 6 weeks since last previous dose of DTP or OPV. MMR vaccine should not be delayed just to allow simultaneous administration with DTP and OPV. Administering MMR at 15 months and DTP-4 and OPV-3 at 18 months continues to be an acceptable alternative.

[§§] MMR-Measles, Mumps, and Rubella Virus Vaccine, Live.

[¶¶] Hemophilus b Polysaccharide Vaccine.

[***] Up to the seventh birthday.

[†††] Td-Tetanus and Diphtheria Toxoids Adsorbed (For adult use)—contains the same dose of tetanus toxoid as DTP or DT and a reduced dose of diphtheria toxoid.

with health-care recommendations or if other purposes are served by the additional visit. Such a schedule remains an acceptable alternative to the newly proposed schedule involving simultaneous administration of DTP, MMR, and OPV in a single visit.

References

1. ACIP: General recommendations on immunization. MMWR 1983;32:1-17.
2. Deforest A, Long FF, Lischner HW, et al. Simultaneous administration of measles-mumps-rubella (MMR) with booster doses of diphtheria-tetanus-pertussis (DTP) and poliovirus (OPV) vaccines (unpublished data).

Epidemiologic Notes and Reports

Maternal Deaths Associated with Barbiturate Anesthetics — New York City

While reviewing pregnancy-related deaths in New York City since 1980, the New York City Bureau of Maternity Services and Family Planning noted that seven deaths were associated with the administration of an ultrashort-acting barbiturate anesthetic (Brevital®) for termination of pregnancy. All seven women suffered cardiorespiratory arrest either during induction or shortly thereafter on the operating room table or in the recovery room.

All seven women were black. Five were 21 years of age or younger. The mean gestational length was 13 weeks; cases included both first- and second-trimester termination procedures. Two procedures were performed in hospitals, four in free-standing clinics, and one in a private physician's office. The dose recommended for methohexital sodium (Brevital) is 1.5 mg/kg body weight, with an induction dose of 75-100 mg administered intravenously (IV) (*1*). The mean dose for six of the seven women reviewed was 2.4 mg/kg, with a range of 1.0 mg/kg to 4.5 mg/kg (Table 1).

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TABLE 1. Characteristics of anesthesia (Brevital)-related deaths associated with abortion procedures — New York City, January 1980-June 1985

Case no.	Age (years)	Race	Gestation (weeks)	Procedure*	Site†	Total dose (mg)	Patient weight (kg)	Dose mg/kg§
1	35	Black	10	Suction	Out	300	100	3.0
2	16	Black	13	D&E	In	100	50	2.0
3	20	Black	8-10	Suction	In	25x2	52	1.0
4	19	Black	10-11	D&C¶	Out	80	59	1.4
5	32	Black	6-8	Suction	Out	300	67	4.5
6	21	Black	18	D&E	Out	150	55	2.7
7	13	Black	21	D&E	Out	NR**	NR	NR
Mean	22.3		13			163	64	2.4

*D&E=dilation and evacuation; D&C=dilation and curettage.

†In: in hospital; out: out of hospital.

§Recommended dosage=1.5 mg/kg body weight, with an induction dose of 75-100 mg IV.

¶Intended but not performed due to cardiac arrest during induction of anesthesia.

**Not recorded.

Maternal Deaths – Continued

An expert advisory panel, convened by the New York City Department of Health (NYCDH), reviewed charts, termination-of-pregnancy certificates, and autopsy reports. The panel concluded that these deaths were related to complications of anesthesia and that black women under 25 were overrepresented among the decedents, since they comprised only 26% of all women obtaining abortions in New York City during the same period (*2*). New York City's Commissioner of Health issued an alert (*3*) to physicians and administrators stipulating that standards set by the Joint Committee on the Accreditation of Hospitals (JCAH) (*4*), the American College of Obstetricians and Gynecologists (*5*), and the NYCDH (*6*) be met whenever general anesthesia is administered.

Because of concern by the NYCDH, abortion mortality data collected by CDC were reviewed to further describe the epidemiology of abortion risks in New York City compared with the United States as a whole. CDC has identified and investigated 193 legal-abortion-related deaths that occurred in the period 1972 through March 1985.

The overall abortion-related mortality rate in New York City between 1972 and 1981 was higher (though not statistically significantly) than in the other parts of the country for white women, for women of black and other races, and for women of all races combined. Mortality rates for 1982-1985 are not included because the total numbers of abortions for those years are not yet known.

Of the 193 legal-abortion-related deaths, 27 (14%) were attributed to complications of general anesthesia. The proportion of legal-abortion-related deaths attributed to complications of general anesthesia was significantly higher in New York City than in the remainder of the United States. This finding persisted throughout the period 1972-1985 (Table 2). Comparisons of women dying from complications of general anesthesia with women dying from other causes in New York City and in other places found the following: in New York City, both groups had similar distributions by age, race, marital status, and gravidity; in places other than New York City, a significantly higher proportion of blacks were among women dying from complications of general anesthesia; and in both comparisons, a significantly higher pro-

TABLE 2. Legal-abortion-related deaths identified by CDC, by cause of death – New York City and other places, 1972-1985[*]

	Cause of death				
	General anesthetic		Other causes		PMR[†]
Area	No.	(%)	No.	(%)	(95% CL)
1972-1979					
New York City	8	(29.6)	19	(70.4)	4.4
Other United States	9	(6.8)	123	(93.2)	(1.9-9.9)[§]
1980-1985					
New York City	7	(63.6)	4	(36.4)	4.9
Other United States	3	(13.0)	20	(87.0)	(1.7-13.8)[§]
1972-1985					
New York City	15	(39.5)	23	(60.5)	5.1
Other United States	12	(7.7)	143	(92.3)	(2.7-9.6)[§]
Total U.S.					
1972-1979	17	(10.7)	142	(89.3)	
1980-1985	10	(29.4)	24	(70.6)	
1972-1985	27	(14.0)	166	(86.0)	

[*] The numbers of legal-abortion-related deaths for the period 1983-1985 are incomplete.

[†] Proportional mortality ratio; 95% confidence limits.

[§] Significant at $p < 0.05$.

Maternal Deaths – Continued

portion of women dying from complications of general anesthesia died during the first trimester.

Regarding type of anesthetic, CDC data reveal that, among the 27 women whose deaths were attributed to complications of general anesthesia, the type of anesthetic used was known only in 23 cases. In 21 cases, short-acting barbiturates were used (Brevital in 16, Pentothal® in three, Surital® in one, and unspecified barbiturates in one). The dose employed was stated in only four cases (in addition to the above seven cases reported from New York City), but the women's weights were not stated.

Thus, a large percentage of deaths due to complications of general anesthesia was associated with the use of short-acting barbiturates. However, based on available information, a drug-specific mortality rate could not be estimated, nor could a general-anesthetic-specific mortality rate be calculated.

Reported by W Chavkin, MD, L Fernandez, M Harris, MD, GK Higginson, MD, J Pakter, MD, New York City Dept of Health; Pregnancy Epidemiology Br, Div of Reproductive Health, Center for Health Promotion and Education, CDC.

Editorial Note: The higher overall legal-abortion-related mortality rate in New York City as compared with that in other parts of the United States between 1972 and 1981 may be due to the fact that women obtaining abortions in New York City during that period were in a higher risk group than women obtaining abortions in other parts of the United States. CDC abortion surveillance data show that, compared with women obtaining abortions in other parts of the United States, the New York City women were generally older, a higher proportion were of black and other races, and a higher proportion obtained their abortions during the second trimester. The significantly increased proportion of abortion-related deaths associated with general-anesthesia complications in New York City may be partially explained by the more frequent use of general anesthetics for performance of abortions in New York City than in the other parts of the country (*7*).

Previous studies have shown that, compared with local anesthetics, the use of general anesthesia for induced abortion during the first trimester was associated with a twofold to fourfold increased risk of death (*8*). However, general anesthetics have been frequently used when abortions are performed. It is estimated that general anesthetics were used for approximately 46% of all abortions done in hospitals during 1971-1975 (*9*) and approximately 27% of all abortions done in clinics during 1976-1977 (*10*).

The fact that most deaths due to general anesthesia occurred during the first trimester may be expected, since more than 85% of all abortions done in the United States between 1972 and 1981 were done during the first trimester (*11*) and since general anesthesia is more commonly employed during first-trimester procedures than second-trimester procedures. Data from the Joint Program for the Study of Abortion reveal that, between 1975 and 1978, 26% of first-trimester abortions were done under general anesthesia, compared with 13.6% of those done during the second trimester (*12*).

Short-acting barbiturates have an important place in the practice of anesthesiology. They are the IV anesthetics of choice for most anesthesiologists. They are used to induce general anesthesia and are commonly used for maintenance during procedures lasting 15-20 minutes (*11*). However, the frequency of using short-acting barbiturates for pregnancy termination procedures is not known.

The deaths due to complications of general anesthesia underscore the need for close and

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Maternal Deaths – Continued

continuous supervision of general-anesthesia administration by a qualified anesthesiologist, adequate recovery-room monitoring, and particular care in dose calculation using patient weight. Investigation of seven general anesthetic-related deaths by the New York City Bureau of Maternity Services and Family Planning revealed that four of six women were given overdoses of methohexital. Data to compare adverse reactions associated with the use of methohexital for other procedures are not available. The above analysis demonstrates an increase in the contribution of general-anesthesia complications to abortion-related deaths. While the overall abortion mortality rate based on deaths reported to CDC declined by 87% from 1972 to 1981 (*11*), the proportion of abortion-related deaths due to complications of general anesthesia increased from 11% between 1972 and 1979 to 29% between 1980 and 1985 (Table 2). Most of those deaths (24 of 27 [89%]) occurred during the first trimester. The increased risk of using a general anesthetic rather than a local anesthetic for first-trimester abortion has been documented (*8*). Clinicians should carefully review their use of general anesthetics for pregnancy-termination procedures, especially during the first trimester.

(Continued on page 587)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	37th Week Ending			Cumulative, 37th Week Ending		
	Sept. 13, 1986	Sept. 14, 1985	Median 1981-1985	Sept. 13, 1986	Sept. 14, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	277	153	N	8,781	5,432	N
Aseptic meningitis	381	804	430	6,284	6,020	6,020
Encephalitis: Primary (arthropod-borne & unspec.)	40	47	70	741	815	963
Post-infectious	3	1	2	79	86	71
Gonorrhea: Civilian	14,909	19,140	19,140	612,692	622,293	632,924
Military	264	531	531	11,684	15,122	17,270
Hepatitis: Type A	411	437	437	15,350	15,477	15,477
Type B	379	496	430	18,137	18,094	16,769
Non A, Non B	41	91	N	2,486	2,920	N
Unspecified	74	101	151	3,228	4,015	5,054
Legionellosis	38	19	N	477	506	N
Leprosy	4	4	4	182	269	177
Malaria	14	21	21	735	730	730
Measles: Total*	63	39	9	5,413	2,456	2,315
Indigenous	48	27	N	5,154	2,037	N
Imported	15	12	N	259	419	N
Meningococcal infections: Total	24	25	34	1,833	1,759	2,048
Civilian	24	25	34	1,831	1,753	2,044
Military	-	-	-	2	6	10
Mumps	34	35	35	3,481	2,229	2,443
Pertussis	96	118	37	2,183	2,116	1,620
Rubella (German measles)	5	5	5	407	548	774
Syphilis (Primary & Secondary): Civilian	447	503	618	18,283	18,832	21,518
Military	1	1	6	122	122	266
Toxic Shock syndrome	3	10	N	249	281	N
Tuberculosis	438	423	507	15,394	15,036	16,516
Tularemia	5	3	6	103	127	188
Typhoid fever	6	12	11	204	253	283
Typhus fever, tick-borne (RMSF)	23	27	27	588	530	833
Rabies, animal	96	123	123	3,915	3,820	4,539

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis	25
Botulism: Foodborne	6	Plague	7
Infant	37	Poliomyelitis, Paralytic (Calif. 1)	1
Other	1	Psittacosis (Upstate N.Y. 1)	75
Brucellosis (Fla. 1)	56	Rabies, human	-
Cholera (La. 1)	2	Tetanus (Tenn. 1, Tex. 1)	49
Congenital rubella syndrome	4	Trichinosis	21
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine) (Tex. 1)	35
Diphtheria	-		

*Eight of the 48 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending September 13, 1986 and September 14, 1985 (37th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis: Primary	Encephalitis: Post-infectious	Gonorrhea (Civilian)	Gonorrhea (Civilian)	Hepatitis (Viral), by type: A	Hepatitis (Viral), by type: B	Hepatitis (Viral), by type: NA,NB	Hepatitis (Viral), by type: Unspecified	Legionellosis	Leprosy
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	8,781	381	741	79	612,692	622,293	411	379	41	74	38	182
NEW ENGLAND	385	16	18	3	15,934	16,193	13	28	3	6	6	6
Maine	14	4	-	-	640	794	-	2	-	-	-	-
N.H.	10	-	2	-	398	405	-	-	-	-	-	-
Vt.	4	-	3	2	184	231	1	2	1	-	1	-
Mass.	212	4	4	-	6,320	6,288	5	16	2	6	5	6
R.I.	22	3	-	-	1,203	1,323	-	-	-	-	-	-
Conn.	123	5	9	1	7,189	7,172	7	8	-	-	-	-
MID ATLANTIC	3,399	56	80	7	103,688	89,423	14	25	1	11	8	12
Upstate N.Y.	337	22	30	4	12,306	12,111	12	13	-	1	-	1
N.Y. City	2,296	4	16	-	59,701	44,683	-	4	-	10	8	10
N.J.	532	14	10	-	13,681	13,462	2	8	1	-	-	-
Pa.	234	16	24	3	18,000	19,167	-	-	-	-	-	1
E.N. CENTRAL	585	102	216	11	79,486	83,012	24	38	3	2	1	4
Ohio	132	50	71	3	20,168	21,519	12	9	-	-	-	-
Ind.	50	21	56	3	8,971	8,838	3	9	-	1	-	-
Ill.	274	-	41	4	21,796	21,279	-	-	-	-	-	3
Mich.	104	31	38	1	25,556	23,307	9	19	3	1	1	1
Wis.	25	-	10	-	2,975	8,069	-	1	-	-	-	-
W.N. CENTRAL	108	20	41	9	26,616	28,998	12	11	-	1	1	2
Minn.	60	4	17	-	3,809	4,289	2	3	-	-	-	1
Iowa	12	3	11	-	2,710	3,099	-	1	-	-	-	-
Mo.	60	8	1	-	13,365	13,950	2	6	-	-	-	-
N. Dak.	2	-	1	-	236	197	-	-	-	-	-	-
S. Dak.	1	1	9	-	557	536	-	-	-	-	-	-
Nebr.	8	-	-	1	2,076	2,481	1	-	-	-	-	-
Kans.	25	4	2	8	3,863	4,446	7	1	-	1	1	1
S. ATLANTIC	1,220	59	100	27	180,649	182,755	59	94	10	14	16	2
Del.	18	-	6	-	2,614	3,059	1	1	-	-	-	-
Md.	123	16	25	1	18,799	20,739	14	22	3	2	13	-
D.C.	151	-	-	1	11,947	10,890	-	2	-	-	-	-
Va.	108	12	29	1	13,071	13,420	3	20	2	6	-	1
W. Va.	7	2	25	-	1,611	1,848	1	1	-	2	-	-
N.C.	47	7	13	1	24,982	25,404	9	6	2	2	-	-
S.C.	29	1	-	-	13,915	15,642	1	13	-	-	1	-
Ga.	197	11	-	1	27,037	32,607	4	8	-	-	-	-
Fla.	540	10	2	22	46,673	39,146	26	21	3	2	2	1
E.S. CENTRAL	111	25	47	4	49,954	53,026	17	29	1	-	-	1
Ky.	25	17	22	1	5,465	6,033	1	4	1	-	-	-
Tenn.	53	1	4	1	19,339	20,102	-	6	-	-	-	-
Ala.	19	7	20	2	14,271	16,188	2	16	-	-	-	1
Miss.	14	-	1	-	10,879	10,703	14	3	-	-	-	-
W.S. CENTRAL	496	47	100	6	71,790	78,500	57	56	12	16	1	17
Ark.	22	3	-	2	6,854	7,597	2	5	1	-	-	-
La.	114	4	5	-	13,101	15,043	1	7	1	2	1	1
Okla.	27	6	18	-	8,301	8,647	6	4	1	1	-	-
Tex.	333	34	77	4	43,534	47,213	48	40	9	13	-	16
MOUNTAIN	211	31	28	1	18,337	19,205	53	19	2	4	-	11
Mont.	4	-	-	1	505	537	5	1	-	-	-	-
Idaho	2	-	-	-	584	600	2	5	1	-	-	-
Wyo.	4	-	2	-	406	432	-	1	-	-	-	-
Colo.	97	8	4	-	4,769	5,661	10	8	-	2	-	3
N. Mex.	14	7	3	-	1,812	2,216	28	-	1	-	-	-
Ariz.	53	16	9	-	5,968	5,597	6	-	-	1	-	5
Utah	13	-	6	-	788	877	-	-	-	1	-	1
Nev.	24	-	2	-	3,506	3,285	2	4	-	-	-	2
PACIFIC	2,206	25	113	11	86,258	91,181	162	79	9	20	5	127
Wash.	119	2	11	-	6,495	6,980	8	6	-	-	3	15
Oreg.	47	-	-	-	3,610	4,583	21	13	1	-	-	-
Calif.	1,985	20	99	11	73,242	76,202	133	56	8	20	2	88
Alaska	11	-	3	-	1,966	2,134	-	4	-	-	-	-
Hawaii	34	3	-	-	945	1,282	-	-	-	-	-	24
Guam	-	-	-	-	135	148	-	-	-	-	-	1
P.R.	76	-	5	-	1,692	2,350	1	2	-	-	-	7
V.I.	3	-	-	-	178	337	-	2	-	-	-	-
Pac. Trust Terr.	-	-	-	-	334	655	2	-	-	-	-	39
Amer. Samoa	-	-	-	-	31	-	3	-	-	-	-	2

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending September 13, 1986 and September 14, 1985 (37th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	735	48	5,154	15	259	2,456	1,833	34	3,481	96	2,183	2,116	5	407	548
NEW ENGLAND	43	4	82	6	14	126	124	1	53	2	120	98	-	9	12
Maine	2	3	13	-	-	1	23	-	-	-	2	5	-	-	-
N H	2	-	42	-	-	-	6	1	13	-	59	39	-	1	2
Vt	1	-	-	-	-	-	15	-	3	-	3	3	-	1	-
Mass	24	1	24	6†§	12	118	27	-	9	-	28	31	-	4	6
R I	5	-	2	-	-	-	17	-	9	-	5	13	-	2	-
Conn	9	-	1	-	2	7	36	-	19	2	23	7	-	1	4
MID ATLANTIC	106	21	1,660	7	30	204	294	2	153	5	151	130	-	31	217
Upstate N Y	39	6	74	5†§	24	85	98	-	55	4	98	67	-	23	17
N Y City	28	15	659	2†	4	63	60	-	17	-	3	18	-	5	175
N J	20	-	905	-	-	28	30	1	38	-	14	5	-	3	11
Pa	19	-	22	-	2	28	106	1	43	1	36	40	-	-	14
E N CENTRAL	46	12	1,021	-	17	527	255	14	2,379	4	274	494	-	39	29
Ohio	13	-	-	-	10	54	103	-	100	-	117	53	-	1	-
Ind	2	8	25	-	-	57	24	1	32	2	24	147	-	-	1
Ill	15	4	676	-	4	297	68	11	1,791	1	30	47	-	28	12
Mich	13	-	58	-	-	60	54	2	253	1	27	35	-	8	15
Wis	3	-	262	-	3	59	6	-	203	-	76	212	-	2	1
W N CENTRAL	23	-	322	-	17	11	88	4	89	49	236	141	1	11	19
Minn	6	-	45	-	4	6	17	-	1	2	47	70	-	-	2
Iowa	1	-	133	-	1	-	11	1	25	-	18	5	-	1	1
Mo	10	-	25	-	6	2	31	2	17	6	18	27	-	1	7
N Dak	-	-	25	-	1	2	-	-	3	-	4	9	-	1	2
S Dak	-	-	-	-	-	-	4	-	1	-	14	2	-	-	-
Nebr	4	-	-	-	-	-	10	-	-	-	7	4	-	-	-
Kans	2	-	94	-	5	1	15	1	42	41	128	24	1	8	7
S ATLANTIC	88	2	554	-	56	307	336	-	161	11	627	413	1	11	50
Del	1	-	1	-	-	-	2	-	-	1	226	1	-	-	1
Md	12	-	26	-	9	103	44	-	17	2	139	246	-	-	6
D C	1	-	-	-	2	20	4	-	-	-	-	-	-	-	-
Va	22	-	36	-	24	28	59	-	34	-	33	11	-	-	2
W Va	4	-	2	-	-	33	3	-	39	-	23	4	-	-	9
N C	4	1	3	-	1	9	56	-	14	-	58	21	-	-	-
S C	6	-	274	-	-	3	30	-	12	-	13	2	-	-	3
Ga	9	-	79	-	14	8	50	-	15	8	111	81	-	-	-
Fla	29	1	133	-	6	103	88	-	30	-	24	47	1	11	29
E S CENTRAL	16	-	58	-	9	7	100	1	28	-	43	37	-	4	2
Ky	4	-	-	-	6	5	24	-	6	-	5	6	-	4	2
Tenn	1	-	55	-	1	1	36	-	17	-	15	16	-	-	-
Ala	7	-	1	-	1	-	28	1	4	-	23	11	-	-	-
Miss	4	-	2	-	1	1	12	-	1	-	-	4	-	-	-
W S CENTRAL	73	1	598	2	38	425	163	2	154	3	174	303	-	57	32
Ark	-	-	276	-	2	-	24	-	7	1	12	12	-	-	1
La	14	-	4	-	-	42	23	-	2	2	13	11	-	-	-
Okla	9	-	37	-	2	1	21	N	N	-	95	136	-	-	1
Tex	50	1	281	2†	34	382	95	2	145	-	54	144	-	57	30
MOUNTAIN	30	1	300	-	26	529	91	1	209	10	217	150	-	23	5
Mont	-	-	-	-	8	137	8	-	5	1	14	8	-	2	-
Idaho	1	-	1	-	-	137	3	-	7	-	33	10	-	-	1
Wyo	-	-	-	-	-	-	2	-	-	-	4	-	-	1	-
Colo	8	-	2	-	5	13	15	-	12	2	59	54	-	1	-
N Mex	5	-	32	-	7	6	9	N	N	-	20	11	-	-	2
Ariz	10	-	252	-	6	236	19	1	170	2	50	27	-	2	1
Utah	3	1	12	-	-	-	9	-	10	4	33	40	-	14	-
Nev	3	-	1	-	-	-	26	-	5	1	4	-	-	3	1
PACIFIC	310	7	559	-	52	320	382	9	255	12	341	350	3	222	182
Wash	22	-	158	-	25	72	54	-	8	3	102	60	-	14	14
Oreg	15	-	4	-	4	5	31	N	N	-	10	40	-	1	1
Calif	272	1	370	-	22	222	284	9	223	8	219	204	3	202	118
Alaska	-	-	-	-	-	-	11	-	6	-	2	29	-	-	1
Hawaii	1	6	27	-	1	21	2	-	18	1	8	17	-	5	48
Guam	1	-	4	-	1	11	-	-	4	-	-	-	-	3	2
P R	4	-	33	-	-	54	2	5	31	-	13	10	-	60	25
V I	-	-	-	-	-	10	-	-	13	-	-	-	-	-	-
Pac Trust Terr	-	-	-	-	-	-	1	-	10	-	-	-	-	2	-
Amer Samoa	-	-	2	-	-	-	-	-	4	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations

N Not notifiable U Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending September 13, 1986 and September 14, 1985 (37th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	18,283	18,832	3	15,394	15,036	103	204	588	3,915
NEW ENGLAND	337	400	-	494	520	1	12	12	5
Maine	15	12	-	33	37	-	-	-	-
N H	10	29	-	19	16	-	-	2	-
Vt	8	6	-	14	5	-	-	-	-
Mass	182	191	-	256	315	1	10	4	-
R I	18	12	-	40	38	-	-	3	3
Conn	104	150	-	132	109	-	2	3	2
MID ATLANTIC	2,653	2,500	-	3,133	2,776	1	16	27	471
Upstate N Y	120	181	-	457	486	-	3	17	62
N Y City	1,517	1,533	-	1,629	1,330	-	7	5	-
N J	484	490	-	534	387	1	5	2	16
Pa	532	296	-	513	573	-	1	3	393
E N CENTRAL	696	738	-	1,859	1,837	-	17	51	98
Ohio	95	106	-	329	326	-	4	46	9
Ind	86	67	-	195	226	-	2	-	14
Ill	351	362	-	797	785	-	2	2	29
Mich	125	156	-	450	391	-	7	3	21
Wis	39	47	-	88	109	-	2	-	25
W N CENTRAL	154	158	1	456	421	30	8	40	626
Minn	27	33	1	110	90	-	1	1	90
Iowa	6	17	-	39	44	1	-	1	143
Mo	82	78	-	229	207	23	6	20	65
N Dak	3	2	-	6	8	-	-	1	132
S Dak	4	5	-	19	19	2	-	6	126
Nebr	11	7	-	7	13	1	-	4	23
Kans	21	16	-	46	40	3	1	7	47
S ATLANTIC	5,648	5,566	-	2,956	3,036	9	32	269	938
Del	39	28	-	27	29	-	1	1	-
Md	307	324	-	230	266	2	10	28	459
D C	212	245	-	101	118	1	4	-	26
Va	260	215	-	245	266	2	6	43	135
W Va	18	15	-	88	81	-	3	7	32
N C	357	481	-	406	382	1	4	95	7
S C	469	582	-	390	368	-	-	62	47
Ga	1,072	975	-	453	512	3	-	31	151
Fla	2,814	2,701	-	1,016	1,014	-	4	2	81
E S CENTRAL	1,234	1,426	-	1,359	1,335	8	2	77	255
Ky	56	47	-	321	320	3	-	17	70
Tenn	451	452	-	395	377	4	1	35	97
Ala	397	451	-	428	405	1	-	14	86
Miss	330	476	-	215	233	-	1	11	2
W S CENTRAL	3,588	4,305	-	1,934	1,851	46	15	103	565
Ark	173	224	-	255	204	34	-	8	131
La	624	750	-	320	264	1	1	-	17
Okla	98	123	-	185	184	7	1	80	52
Tex	2,693	3,208	-	1,174	1,199	4	13	15	365
MOUNTAIN	423	501	1	360	391	7	11	8	546
Mont	6	5	1	20	46	1	1	4	176
Idaho	10	4	-	17	18	-	-	-	7
Wyo	1	7	-	-	5	-	-	1	231
Colo	103	125	-	31	43	3	1	3	26
N Mex	51	95	-	69	70	1	-	-	6
Ariz	169	232	-	173	172	-	6	-	90
Utah	13	5	-	28	11	1	2	-	3
Nev	70	28	-	22	26	1	1	-	7
PACIFIC	3,650	3,238	1	2,843	2,869	1	91	1	411
Wash	110	84	-	134	164	-	3	-	5
Oreg	77	67	-	97	93	-	-	-	-
Calif	3,437	3,035	1	2,441	2,405	-	84	1	398
Alaska	1	2	-	37	71	1	1	-	8
Hawaii	25	50	-	134	136	-	3	-	-
Guam	1	2	-	34	31	-	1	-	-
P R	629	569	-	240	243	-	5	-	35
V I	1	2	-	1	1	-	-	-	-
Pac Trust Terr	196	92	-	52	44	-	45	-	-
Amer Samoa	-	-	-	5	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending September 13, 1986 (37th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	570	381	116	41	16	16	37
Boston, Mass. §	154	91	38	12	5	8	14
Bridgeport, Conn.	45	29	9	2	3	2	2
Cambridge, Mass.	25	18	7	2	-	-	4
Fall River, Mass.	33	24	7	1	1	-	-
Hartford, Conn.	68	45	16	5	1	1	2
Lowell, Mass.	12	8	2	2	-	-	1
Lynn, Mass.	13	6	4	2	-	1	-
New Bedford, Mass.	23	18	5	-	-	-	2
New Haven, Conn.	38	27	5	4	1	1	2
Providence, R.I.	27	20	5	1	-	1	2
Somerville, Mass.	5	5	-	-	-	-	-
Springfield, Mass.	48	33	7	4	2	2	1
Waterbury, Conn.	27	20	4	1	2	-	3
Worcester, Mass.	52	39	7	5	1	-	4
MID. ATLANTIC	2,698	1,705	573	293	53	73	122
Albany, N.Y.	56	33	19	1	-	3	-
Allentown, Pa.	15	12	3	-	-	-	-
Buffalo, N.Y.	81	54	19	4	2	2	6
Camden, N.J.	34	15	9	4	2	4	1
Elizabeth, N.J.	23	17	5	1	-	-	-
Erie, Pa.†	47	31	10	3	2	1	1
Jersey City, N.J.	38	19	10	6	2	1	2
N.Y. City, N.Y.	1,436	907	274	191	31	33	50
Newark, N.J.	82	38	23	14	3	4	4
Paterson, N.J. §	28	18	6	4	-	-	2
Philadelphia, Pa.	409	260	92	35	6	16	32
Pittsburgh, Pa.†	55	32	13	5	1	4	2
Reading, Pa.	33	24	7	1	1	-	2
Rochester, N.Y.	121	85	25	8	-	3	8
Schenectady, N.Y.	30	25	5	-	-	-	3
Scranton, Pa.†	26	24	2	-	-	-	1
Syracuse, N.Y.	116	73	30	8	2	2	6
Trenton, N.J.	29	15	11	2	1	-	-
Utica, N.Y.	17	12	3	2	-	-	-
Yonkers, N.Y.	22	11	7	4	-	-	2
E.N. CENTRAL	2,312	1,494	508	168	67	75	74
Akron, Ohio	74	43	16	6	6	3	-
Canton, Ohio	42	31	7	1	2	1	2
Chicago, Ill. §	564	362	125	45	10	22	16
Cincinnati, Ohio	146	82	31	10	8	15	6
Cleveland, Ohio	160	103	37	12	7	1	1
Columbus, Ohio	126	82	32	8	2	2	2
Dayton, Ohio	95	57	26	4	5	3	4
Detroit, Mich.	248	139	61	28	12	8	4
Evansville, Ind.	36	28	6	1	1	-	1
Fort Wayne, Ind.	75	52	14	6	-	3	4
Gary, Ind.	24	19	4	1	-	-	-
Grand Rapids, Mich.	56	40	11	-	2	3	3
Indianapolis, Ind.	186	124	44	10	5	3	5
Madison, Wis.	34	23	5	4	-	2	4
Milwaukee, Wis.	139	95	28	9	2	5	8
Peoria, Ill.	44	31	10	1	2	-	2
Rockford, Ill.	45	40	2	2	1	-	5
South Bend, Ind.	58	41	12	4	-	1	5
Toledo, Ohio	98	65	20	9	2	2	2
Youngstown, Ohio	62	37	17	7	-	1	-
W.N. CENTRAL	736	505	145	38	23	25	32
Des Moines, Iowa	71	44	19	5	2	1	1
Duluth, Minn.	54	36	14	2	2	-	-
Kansas City, Kans.	26	15	4	1	3	3	-
Kansas City, Mo.	115	78	23	3	6	5	4
Lincoln, Nebr.	31	22	6	1	1	1	-
Minneapolis, Minn.	62	43	9	3	1	6	5
Omaha, Nebr.	85	58	22	2	3	-	4
St. Louis, Mo.	139	100	20	13	-	6	10
St. Paul, Minn.	69	55	7	3	3	1	2
Wichita, Kans.	84	54	21	5	2	2	6
S. ATLANTIC	1,178	708	270	124	40	36	44
Atlanta, Ga.	160	87	42	21	7	3	2
Baltimore, Md.	44	30	5	8	1	-	3
Charlotte, N.C.	73	42	26	3	1	1	2
Jacksonville, Fla.	139	80	36	9	7	7	9
Miami, Fla.	99	52	30	13	2	1	-
Norfolk, Va.	71	43	13	7	3	5	4
Richmond, Va.	86	50	25	8	2	1	7
Savannah, Ga.	45	33	9	1	1	1	1
St. Petersburg, Fla.	157	130	16	6	2	3	7
Tampa, Fla.	63	33	15	9	2	3	5
Washington, D.C.	203	98	47	37	10	11	4
Wilmington, Del.	38	28	6	2	2	-	-
E.S. CENTRAL	708	465	147	49	25	22	23
Birmingham, Ala.	116	72	25	10	1	8	3
Chattanooga, Tenn.	43	31	9	2	1	-	4
Knoxville, Tenn.	71	49	10	10	2	-	-
Louisville, Ky.	95	64	20	4	4	3	-
Memphis, Tenn. §	164	108	35	10	5	6	7
Mobile, Ala.	52	31	13	1	4	3	3
Montgomery, Ala.	34	24	6	2	2	-	-
Nashville, Tenn.	133	86	29	10	6	2	6
W.S. CENTRAL	1,333	799	289	139	54	52	56
Austin, Tex.	39	25	8	4	1	1	-
Baton Rouge, La.	44	22	10	5	3	4	3
Corpus Christi, Tex.	56	38	12	5	1	-	-
Dallas, Tex.	191	104	39	31	11	6	7
El Paso, Tex.	47	30	8	6	1	2	7
Fort Worth, Tex.	101	62	20	5	5	9	6
Houston, Tex.	241	140	61	24	10	6	4
Little Rock, Ark.	111	74	17	9	4	7	6
New Orleans, La.	151	84	36	18	6	7	-
San Antonio, Tex.	180	105	45	18	7	5	9
Shreveport, La.	103	70	18	11	1	3	8
Tulsa, Okla.	69	45	15	3	4	2	6
MOUNTAIN	617	388	127	57	29	16	23
Albuquerque, N. Mex.	82	42	29	8	2	1	-
Colo. Springs, Colo.	32	20	7	3	-	2	2
Denver, Colo.	107	69	21	9	6	2	2
Las Vegas, Nev.	83	52	17	12	1	1	2
Ogden, Utah	32	28	4	-	-	-	1
Phoenix, Ariz.	120	78	16	9	11	6	5
Pueblo, Colo.	17	12	3	-	2	-	-
Salt Lake City, Utah	48	21	13	9	3	2	-
Tucson, Ariz.	96	66	17	7	4	2	11
PACIFIC	2,104	1,318	418	229	86	50	112
Berkeley, Calif.	17	12	4	1	-	-	1
Fresno, Calif.	100	53	27	9	8	3	13
Glendale, Calif.	35	28	3	3	1	-	1
Honolulu, Hawaii	79	52	19	2	1	5	4
Long Beach, Calif.	94	66	11	8	5	4	9
Los Angeles, Calif.	681	404	141	99	29	5	19
Oakland, Calif.	68	41	15	9	-	3	5
Pasadena, Calif.	37	32	2	-	3	-	1
Portland, Oreg.	125	74	29	6	9	7	4
Sacramento, Calif.	134	91	21	18	4	-	15
San Diego, Calif.	165	100	38	12	8	7	16
San Francisco, Calif.	140	84	31	22	-	3	2
San Jose, Calif.	185	106	43	21	9	6	11
Seattle, Wash.	128	88	18	10	5	6	4
Spokane, Wash.	63	44	9	7	3	-	6
Tacoma, Wash.	53	43	7	2	-	1	1
TOTAL	12,256††	7,761	2,593	1,138	393	365	523

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages

§ Data not available. Figures are estimates based on average of past 4 weeks.

Maternal Deaths – Continued

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Tuberculosis and Acquired Immunodeficiency Syndrome — Florida

In 1985, 1,425 tuberculosis cases were reported in Florida, an increase of almost 7% over the 1,335 cases reported in 1984. Concern about a possible association between human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV)* infection and increased tuberculosis morbidity (*1,2*) led to an evaluation of data on acquired immunodeficiency syndrome (AIDS) and tuberculosis. Four subgroups of persons were identified and their characteristics compared: (1) AIDS patients with and without tuberculosis (AIDS/TB and AIDS/non-TB, respectively), and (2) tuberculosis patients with and without AIDS (TB/AIDS and TB/non-AIDS, respectively). The overlapping subgroups of AIDS/TB and TB/AIDS are listed separately only because their characteristics were analyzed from two discrete data bases.

AIDS PATIENTS WITH AND WITHOUT TUBERCULOSIS

Of the 1,094 persons meeting the CDC surveillance definition of AIDS (*3*) reported from Florida in the period 1981-1985, 109 (10%) were also diagnosed in the period 1978-1985 as having tuberculosis.† The number of AIDS patients with tuberculosis by year of AIDS diagnosis rose progressively from zero in 1981 to a peak of 55 in 1984; this number fell to 26 in

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*Subcommittee of the International Committee for the Taxonomy of Viruses has proposed that HTLV-III/LAV be officially designated as "Human Immunodeficiency Virus" or HIV.

†These time intervals were chosen because AIDS was first recognized nationally in 1981 and because it was noted that the diagnosis of tuberculosis often preceded the diagnosis of AIDS by months or years.

1985. The interval between report of tuberculosis and diagnosis of AIDS ranged from 7 years before to 15 months after AIDS was diagnosed (median interval, 3 months before AIDS diagnosis). Sixty-two (57%) of the patients were reported to have tuberculosis more than 1 month before they were diagnosed as having AIDS; 30 (28%), within a month before or after they were diagnosed as having AIDS; and 17 (16%), more than a month after they were diagnosed as having AIDS.

AIDS/TB patients were similar to AIDS/non-TB patients with respect to age and sex (Table 3). However, AIDS/TB patients were more frequently black (81%) than were AIDS/non-TB patients (37%), were more frequently foreign born (60% versus 25%), and were less frequently homosexual or bisexual men (21% versus 62%).

TUBERCULOSIS PATIENTS WITH AND WITHOUT AIDS

Of the 7,241 persons in Florida reported to have tuberculosis in the period 1981-1985, 105 (2%)[§] also had AIDS. The number and proportion has generally continued to rise, e.g., in 1981, five (less than 1%) of 1,553; in 1984, 33 (3%) of 1,335; the number fell to 23 (2%) of 1,425 in 1985. Of the 105 TB/AIDS patients, 65 (60%) were reported to have tuberculosis while residing in Dade County; and 23 (22%), while residing in Palm Beach County. Compared with TB/non-AIDS patients, TB/AIDS patients were younger (median 30 years versus 49

[§] The other four of the 109 mentioned earlier in this report had been reported to have tuberculosis before 1981, when no detailed information on individual cases was available; they were therefore excluded from this analysis.

TABLE 3. Characteristics of acquired immunodeficiency syndrome (AIDS) cases with and without tuberculosis (TB)—Florida, 1981-1985*

Characteristic	AIDS/TB (n = 109)		AIDS/non-TB (n = 985)		Statistical significance
	No.	(%)	No.	(%)	
Age					
Median	30		34		
Mean	33.6		34.6		Not significant
Race/ethnicity					
Black	88	(80.7)	363	(36.9)	
White	12	(11.0)	495	(50.3)	$p < 0.001$
Hispanic	9	(8.3)	122	(12.4)	
Other	0	(0.0)	5	(0.5)	
Sex					
Female	18	(16.5)	110	(11.2)	
Male	91	(83.5)	875	(88.8)	Not significant
Country of origin					
U.S.	44	(40.4)	737	(74.8)	
Foreign	65	(59.6)	248	(25.2)	$p < 0.001$
AIDS risk factors					
Homosexual/ bisexual men	23	(21.1)	609	(61.8)	
IV drug abuse	20	(18.3)	128	(13.0)	$p < 0.001$
Born NIR ctry[†]	55	(50.5)	127	(12.9)	
Other/none	11	(10.1)	121	(12.3)	

*Because only aggregate data were available for certain characteristics, no adjustments were made in the analysis.

[†] No identified risk country—country in which heterosexual transmission of human T-lymphotropic virus type III/lymphadenopathy-associated virus is thought to play a major role.

years) and were more often black (79% versus 51%), male (83% versus 71%), and foreign born (60% versus 21%). TB/AIDS patients were also more likely to have extrapulmonary tuberculosis (38% versus 11%), particularly lymphatic and miliary forms, while pleural tuberculosis was extremely rare (Table 4).

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Editorial Note: The total number of AIDS patients in the United States meeting the CDC surveillance case definition represents only a fraction of the number of persons with HTLV-III/LAV infection. It has been estimated that, in 1985, for every case of AIDS, there were 50-100 persons with HTLV-III/LAV infection (*4*). The number of tuberculosis patients with HTLV-III/LAV infection but without AIDS may also exceed the number who have overt AIDS. The fact that tuberculosis did not decline in the nation as a whole in 1985 and the increase in the incidence of tuberculosis in certain areas may be partly explained by the infection with HTLV-III/LAV of persons who already had tuberculous infection (*2*). There are an estimated 10 million persons with latent tuberculous infection in the United States and as many as 1.5 million persons with HTLV-III/LAV infection (*4*). The degree to which these two infected populations overlap may be a factor in the number of tuberculosis cases that develop.

The fact that 10% of AIDS patients from Florida have been diagnosed as having tuberculosis suggests an association between AIDS and tuberculosis. Most of the tuberculosis among the AIDS patients may represent reactivation of latent tuberculous infection acquired in years past rather than progression from recently acquired infection. Immunodeficiency caused by HTLV-III/LAV infection probably allows latent tuberculous infection to progress to clinical

TABLE 4. Characteristics of tuberculosis (TB) cases with and without acquired immunodeficiency syndrome (AIDS)— Florida, 1981-1985

Characteristic	TB/AIDS (n = 105)		TB/non-AIDS (n = 7,136)		Statistical significance
	No.	(%)	No.	(%)	
Age					
Median	30		49		p < 0.001
Mean	33.2		48.7		
Race					
Black	83	(79.0)	3,613	(50.5)	
White	22	(21.0)	3,380	(47.4)	p < 0.001
Other	0	(0.0)	143	(2.0)	
Ethnicity					
Hispanic	11	(10.5)	685	(9.6)	
Non-Hispanic	94	(89.5)	6,451	(90.4)	Not significant
Sex					
Female	18	(17.1)	2,084	(29.2)	
Male	87	(82.9)	5,052	(70.8)	0.001 < p < 0.01
Country of origin					
U.S.	42	(40.0)	5,610	(78.6)	
Foreign	63	(60.0)	1,526	(21.4)	p < 0.001
Form of TB					
Pulmonary	65	(61.9)	6,331	(88.7)	
Pleural	1	(0.1)	216	(3.0)	
Lymphatic	20	(19.0)	167	(2.3)	p < 0.001
Miliary	10	(9.5)	96	(1.3)	
Other	9	(8.6)	326	(4.6)	

Tuberculosis and AIDS – Continued

tuberculosis. However, radiographically, the presentation of tuberculosis in AIDS patients is often indistinguishable from primary forms of the disease as seen in patients without AIDS (*5*). Thus, recently acquired tuberculous infection in this population cannot be ruled out.

The risk that persons with latent tuberculous infection who acquire AIDS (or HTLV-III/LAV infection without AIDS) will develop clinically active tuberculosis cannot be quantified from currently available data. However, the 10% incidence of clinically overt tuberculosis is substantially higher than would be expected for any other group, including tuberculin-positive contacts of tuberculosis cases (*6*).

The reason for the decreased number of TB/AIDS patients reported from Florida in 1985 is unknown. It may represent reporting artifact or a decline in the number of susceptible individuals at risk.

Other health departments may wish to determine the degree to which tuberculosis morbidity is associated with AIDS and the prevalence of HTLV-III/LAV infection in tuberculosis patients. As recommended in recently published guidelines, as part of the evaluation of patients with tuberculosis, risk factors for HTLV-III/LAV should be identified (*7*). Voluntary testing of all persons with these risk factors is also recommended. In addition, testing for HTLV-III/LAV antibody should be considered for patients of all ages who have severe or unusual manifestations of tuberculosis. Such additional studies would help to determine the magnitude of the AIDS/TB problem in other areas and further define the population characteristics of persons with both tuberculosis and HTLV-III/LAV infection (with and without AIDS).

Treatment of tuberculosis patients who also have AIDS or HTLV-III/LAV infection should be instituted in accordance with recently published guidelines (*7*). Prevention of tuberculosis among persons with HTLV-III/LAV infection will require the identification of both HTLV-III/LAV and tuberculous infection and the administration of isoniazid preventive therapy as currently recommended (*7*). Counseling of persons being tested for HTLV-III/LAV infection should be provided in accordance with current recommendations to prevent the transmission of HTLV-III/LAV (*8*).

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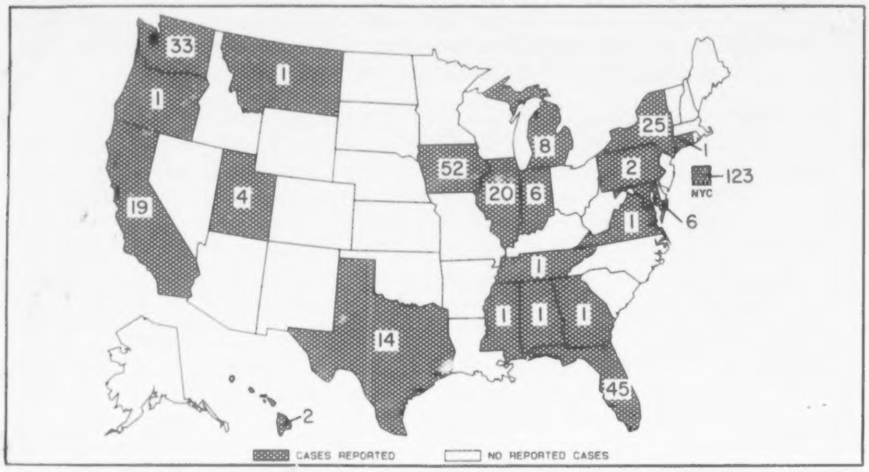
Notice to Readers

Availability of *Proposed National Strategies for the Prevention of Leading Work-Related Diseases and Injuries, Part I*

In May 1985, the Association of Schools of Public Health, in cooperation with the Natio Institute for Occupational Safety and Health (NIOSH), convened the first National Symposiu on Prevention of Leading Work-Related Diseases and Injuries in Atlanta, Georgia. Strategies proposed by NIOSH for the prevention of occupational lung diseases, musculoskeletal injuries, occupational cancers, severe occupational traumatic injuries, and cardiovascular diseases were discussed by professionals from all sectors of the occupational safety and health community. The publication from this symposium, *Proposed National Strategies for the Prevention of Leading Work-Related Diseases and Injuries, Part I,* is available from the Association of Schools of Public Health, 1015 Fifteenth Street N.W., Suite 404, Washington, D.C., telephone (202) 842-4812 (price: $12).

FIGURE I. Reported measles cases — United States, weeks 33-36, 1986



The *Morbidity and Mortality Weekly Report* is prepared by the Centers for Disease Control, Atlanta, Georgia, and available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238.

The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report,* Centers for Disease Control, Atlanta, Georgia 30333.

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MORBIDITY AND MORTALITY WEEKLY REPORT

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Current Trends

The Effectiveness of School Health Education

The School Health Education Evaluation (SHEE), conducted in collaboration with CDC, from 1982 through 1984, suggests that exposure to health education curricula in schools can result in substantial changes in students' knowledge, attitude, and self-reported practices.

More than 30,000 fourth- through seventh-grade students representing 1,071 classrooms in 20 states were included in an experimental study comparing the effectiveness of four curricula. Details of the statistical analyses are described elsewhere (*2*). Overall, children exposed to health education showed increased knowledge, healthier attitudes, and better health skills and practices than those who did not receive health education. Comparisons of the curricula showed each to be most effective in the areas emphasized by developers and believed by teachers to be most important.

One of the four curricula evaluated, the School Health Curriculum Project (SHCP, now called "Growing Healthy"), may delay the onset of smoking among youth. In the fourth through the sixth grades, where the prevalence of smoking is low, the rate of self-reported smoking did not differ between classes that received the curriculum and classes that did not. However, among seventh graders, the data showed a 55% increase in smoking (from 8% to 13%) among students who did not participate in SHCP, compared with a 24% increase (from 6% to 8%) among students who did (*1*).

The amount of exposure time to the curricula needed to produce change can be seen in Figure 1. "Effect size" reflects the educational importance (vs. mere statistical significance) of levels reached (*3,4*). Large effects on specific program knowledge were achieved in relatively few classroom hours, while more than 50 hours were required to achieve large effects in general knowledge. Medium effects for self-reported practices were first achieved within 30 hours of instruction, but 50 hours were needed to reach a stable level. Only small effects on attitudes were demonstrated, even after 50 hours of instruction.

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Editorial Note: The SHEE has provided evidence that school health education curricula can effect changes in health-related knowledge, practices, and attitudes, and that such changes increase with amount of instruction. The potential impact of these changes is large. For example, the data from the SHEE suggest that in 1984, if all students in U.S. schools had been exposed to the SHCP, 146,000 students would not have begun to smoke in the seventh grade (Figure 2).

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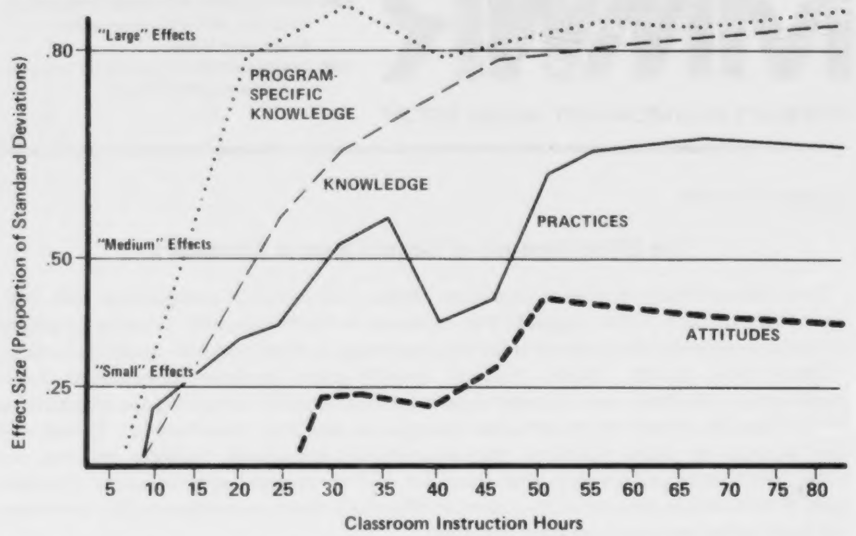
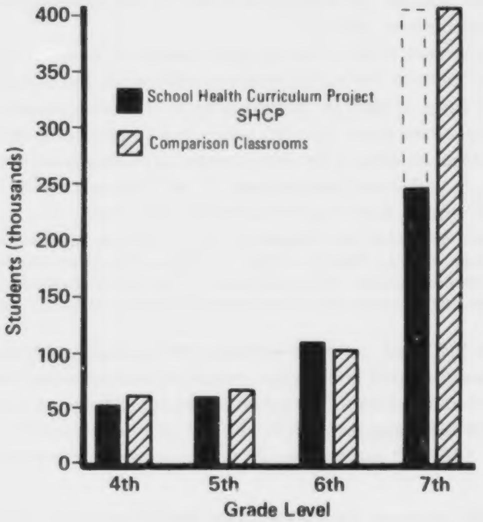
School Health Education — Continued

FIGURE 1. Relationship of effect size and instruction hours for health knowledge, attitudes, and practices*



*Effect sizes were computed as the difference between program and comparison test scores divided by the pooled standard deviation for those classrooms.

FIGURE 2. Estimates of number of children who smoked in 1984 and projected decrease in number of children who would have smoked if not exposed to SHCP



School Health Education — Continued

Since nearly one-third (67) of the 1990 *Objectives for the Nation* may be influenced directly in the school setting, use of health education curricula in schools may substantially contribute to the nation's health. The SHEE "demonstrates that school health education is an effective means of helping children improve their health knowledge and develop healthy attitudes" and "can decrease the likelihood that children will adopt behavior that is hazardous to health, such as cigarette smoking" (*5*). Detailed information regarding the specific and general effects of the various curricula evaluated—as well as the factors affecting their adoption, use, and effectiveness—has been published (*2*).

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Recommendation of the Immunization Practices Advisory Committee (ACIP)

Immunization of Children Infected with Human T-Lymphotropic Virus Type III/ Lymphadenopathy-Associated Virus

INTRODUCTION

This document is intended to summarize available information and to assist health-care providers in developing policies for the immunization of children infected with human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV),* the virus that causes acquired immunodeficiency syndrome (AIDS). These policies may vary depending upon the prevalence of HTLV-III/LAV infection and the incidence of vaccine-preventable diseases in the community, individual assessment of a child's health status, and the risks and benefits of immunization in a particular situation. This discussion considers the risks and benefits of immunization for children residing in the United States based on the risks of vaccine-preventable diseases and the prevalence of HTLV-III/LAV infection and is intended for use by health-care providers in the United States. The recommendations may not pertain to other countries with different risks of vaccine-preventable diseases and prevalence of

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*The AIDS virus has been variously termed human T-lymphotropic virus type III (HTLV-III/LAV), lymphadenopathy-associated virus (LAV), AIDS-associated retrovirus (ARV), or human immunodeficiency virus (HIV). The designation "human immunodeficiency virus" (HIV) has been accepted by a subcommittee of the International Committee for the Taxonomy of Viruses as the appropriate name for the retrovirus that has been implicated as the causative agent of AIDS (Science 1986;232:697).

ACIP: Immunization of Children — Continued

HTLV-III/LAV infection among children. Since these recommendations are based upon information and knowledge available at this time, periodic reassessment and revision will be required as more data concerning risk and benefits associated with immunization of HTLV-III/LAV-infected children become known and as the prevalences of specific vaccine-preventable diseases and HTLV-III infection change.

HTLV-III/LAV INFECTION AMONG CHILDREN

In the period June 1, 1981-September 2, 1986, physicians and health departments in the United States reported 24,430 cases of AIDS to CDC (*1*). Three hundred forty-five (1%) of the case-patients were children under 13 years of age who met the AIDS case definition; 75% of these pediatric cases were reported from New York, Florida, New Jersey, and California. Children with less severe manifestations of HTLV-III/LAV infection (AIDS-related complex, or ARC) or with asymptomatic infections are not now reported to CDC, and no seroprevalence studies have been conducted among children. Thus, the number of less severely affected children and the number of infected but presently asymptomatic children are uncertain. In one recently published case series, 14 (48%) of 29 symptomatic HTLV-III/LAV-infected children met the CDC criteria for AIDS (*2*).

Fifty percent of children reported to CDC were diagnosed as having AIDS during the first year of life; 82%, by 3 years of age (*1*). Sixty-five percent of pediatric AIDS cases reported to CDC were fatal (*3*). Short-term fatality rates are lower for children with less severe disease (ARC) who have not developed opportunistic infections; however, the ultimate prognosis of these children and of asymptomatic infected children is unknown.

MECHANISMS OF TRANSMISSION OF HTLV-III/LAV AMONG CHILDREN

Two risk factors are predominately associated with HTLV-III/LAV infection in children: a) being born to a mother who has HTLV-III/LAV infection, and b) receiving blood or clotting factors containing HTLV-III/LAV. Most case-patients (79%) are children whose mothers probably are infected with the virus. The major risk factors for infection of these women are intravenous (IV) drug abuse and sexual contact with men at risk of HTLV-III/LAV infection (primarily through drug abuse or bisexual contacts); women of Haitian or central African origin are also at a higher risk of acquiring HTLV-III/LAV infection, and a small percentage of infected women have a history of being transfused with blood (*4*). Approximately 15% of pediatric AIDS case-patients have received transfusions of blood or blood products, and 4% have hemophilia and have been treated with clotting-factor concentrates. Information about risk factors is incomplete for 3% of children with AIDS.

Currently available data indicate that most pediatric HTLV-III/LAV infections are acquired from infected women during pregnancy, during labor and delivery, or perhaps shortly after birth. The risk of perinatal transmission from an infected mother to her infant is not known, although prospective studies indicate the rate of transmission has ranged from 0% (0/3) to 65% (13/20) (*5-7*). Seropositive women who had previously delivered an infected child had the highest of these transmission rates (65%) in subsequent pregnancies (*5*). In a retrospective study evaluating nine children whose mothers were later diagnosed as having AIDS, two (22%) children had antibody to HTLV-III/LAV (*8*). Additional prospective studies are needed to define more precisely the rate of perinatal transmission of HTLV-III/LAV.

PREVALENCE OF HTLV-III/LAV INFECTION AMONG WOMEN OF CHILD-BEARING AGE

The prevalence of HTLV-III/LAV infection among women of child-bearing age varies depending on the patient group and geographic area (*4*). Reported confirmed seroprevalences are less than 0.01% among female blood donors in Atlanta and 0.06% among female U.S. military recruit applicants (*4,9*). In contrast, the reported prevalence of HTLV-III/LAV antibody among IV drug abusers has ranged from 2% to 59%, with the highest prevalence in New

York City and northern New Jersey. Female sex partners of IV drug-abusing men with AIDS or with ARC had a reported seroprevalence of 40%-71%, whereas 10% of female partners of asymptomatic infected hemophiliacs were reported to be seropositive (*4*). Seroprevalence among prostitutes has varied greatly (5%-40%) depending on the geographic area and has been largely attributed to a coincidental history of IV drug abuse (*4*). Seroprevalence has been reported to be as high as 5% among persons born in countries in which heterosexual transmission of HTLV-III/LAV is thought to play a major role (e.g., Haiti, central African countries) (*1,10,11*).

IMMUNOLOGIC ABNORMALITIES ASSOCIATED WITH HTLV-III/LAV INFECTION

Children with symptomatic HTLV-III/LAV infection (AIDS or ARC) have immunologic abnormalities similar to those of adult AIDS patients, including hypergammaglobulinemia, decreased T4 lymphocytes, reversed helper/suppressor T-cell ratios, poor T-lymphocyte responses to mitogen stimulation, and altered humoral immunity. Lymphopenia (cell counts less than 1,500 cells/mm^3) is uncommon. Antibody responses of children with AIDS or ARC to diphtheria and tetanus toxoid boosters and to pneumococcal vaccine were absent or lower than those of age-matched controls, which is consistent with defective humoral immunity (*12,13*). Some HTLV-III/LAV-infected children responded adequately to immunization; 60% of AIDS and ARC patients given measles-mumps-rubella vaccine (MMR) prior to diagnosis had protective levels of measles antibodies 5-66 months after immunization (*14*).

Asymptomatic HTLV-III/LAV-infected adults as a group generally have less severe abnormalities of immunologic function than adults with AIDS or ARC, and some may have normal immunologic function, although individual asymptomatic adults may have severe abnormalities (*15*). Immunologic function of asymptomatic HTLV-III/LAV-infected children has not yet been adequately studied but presumably would be more intact than that of symptomatic HTLV-III/LAV-infected children. In a small prospective study, all 29 children with symptomatic HTLV-III/LAV infection had immunologic abnormalities within 5-13 months of being found infected, compared with only two of seven (29%) children reported to have asymptomatic HTLV-III/LAV infection (*2*).

CONCERNS ABOUT IMMUNIZATION OF HTLV-III/LAV-INFECTED CHILDREN

The immunologic abnormalities associated with symptomatic HTLV-III/LAV infection have raised concerns about the immunization of infected children. Replication of live, attenuated vaccine viruses may be enhanced in persons with immunodeficiency diseases and theoretically may produce serious adverse events following immunization of symptomatic HTLV-III/LAV-infected (AIDS and ARC) patients (*16*). Concerns have been expressed on theoretical grounds that antigenic stimulation by immunization with inactivated vaccines might lead to a deterioration of clinical status of HTLV-III/LAV-infected children, but this effect has not been documented (*17*). Since symptomatic HTLV-III/LAV-infected patients have abnormal primary and secondary antibody responses, the efficacy of immunization may be decreased (*18*). The efficacy of immunization for asymptomatic HTLV-III/LAV-infected children is unknown, but presumably would be higher than for symptomatic HTLV-III/LAV-infected children.

Because most HTLV-III/LAV-infected children become infected perinatally, it is to be expected that their mothers are infected with HTLV-III/LAV. Other family members may also be infected with HTLV-III/LAV and may have abnormal immunologic function.[†] Prospective evaluation of 16 asymptomatic HTLV-III/LAV-infected mothers of children diagnosed as having

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[†] Such family members may have been infected by sexual contact with an HTLV-III/LAV-infected person, by parenteral exposure to infected blood (e.g., by sharing needles), or as hemophiliacs who received clotting factors, or by perinatal transmission.

ACIP: Immunization of Children – Continued

AIDS or ARC showed that 12 (75%) mothers developed AIDS or ARC during a 30-month follow-up period (*6*). Regardless of the immune status of the recipient, poliovaccine virus is often excreted by children vaccinated with oral poliovaccine (OPV) and may be transmitted to close contacts (*19*). Immune-deficient individuals (either recipients or contacts) have a higher risk of developing vaccine-associated poliomyelitis than normal individuals. There is no risk of transmitting the viruses contained in measles, mumps, rubella (MMR) vaccine to family members (*20-22*).

While the risks of vaccination are not known with certainty, potential risks may exist if HTLV-III/LAV-infected children are not vaccinated. If local outbreaks of measles occur in geographic areas in which there is both a cluster of unvaccinated children and a high prevalence of HTLV-III/LAV infection, the risk of measles for unvaccinated, HTLV-III/LAV-infected children may be high. Measles infection among patients with immune deficiency may be severe, protracted, and fatal (*23*).

(Continued on page 603)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	38th Week Ending			Cumulative, 38th Week Ending		
	Sept. 20, 1986	Sept. 21, 1985	Median 1981-1985	Sept. 20, 1986	Sept. 21, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	650	151	N	9,431	5,584	N
Aseptic meningitis	372	484	484	6,674	6,504	6,504
Encephalitis: Primary (arthropod-borne & unspec.)	52	45	55	806	860	1,022
Post-infectious	2	2	2	81	100	75
Gonorrhea: Civilian	19,937	21,160	21,160	633,018	643,453	654,716
Military	287	444	510	11,971	15,566	17,827
Hepatitis: Type A	558	482	483	15,917	15,959	15,959
Type B	519	502	502	18,665	18,596	17,352
Non A, Non B	64	86	N	2,554	3,006	N
Unspecified	71	112	183	3,311	4,127	5,237
Legionellosis	15	23	N	493	529	N
Leprosy	2	12	7	185	281	186
Malaria	45	31	31	780	761	761
Measles: Total*	9	15	15	5,429	2,471	2,323
Indigenous	7	13	N	5,171	2,050	N
Imported	2	2	N	258	421	N
Meningococcal infections: Total	29	20	30	1,864	1,779	2,077
Civilian	29	20	30	1,862	1,773	2,073
Military	-	-	-	2	6	11
Mumps	46	44	40	3,542	2,273	2,483
Pertussis	120	164	71	2,304	2,280	1,739
Rubella (German measles)	8	7	20	415	555	786
Syphilis (Primary & Secondary): Civilian	524	541	706	18,880	19,373	22,236
Military	2	4	9	124	126	276
Toxic Shock syndrome	6	2	N	255	283	N
Tuberculosis	419	395	524	15,780	15,431	17,007
Tularemia	3	5	7	106	132	198
Typhoid fever	8	9	9	211	262	293
Typhus fever, tick-borne (RMSF)	19	37	31	606	567	847
Rabies, animal	89	127	127	4,008	3,947	4,639

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis	25
Botulism: Foodborne (Calif. 1)	7	Plague	7
Infant (Calif. 2)	39	Poliomyelitis, Paralytic	1
Other	1	Psittacosis	75
Brucellosis (Tex. 1)	57	Rabies, human	-
Cholera	2	Tetanus (W. Va. 1, Fla. 1)	51
Congenital rubella syndrome (N.Y. City 4)	8	Trichinosis (N.H. 2)	30
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	35
Diphtheria	-		

*One of the 9 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending September 20, 1986 and September 21, 1985 (38th Week)

Reporting Area	AIDS	Aseptic Menin-gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel-losis	Leprosy
			Primary	Post-in-fectious			A	B	NA,NB	Unspeci-fied		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	9,431	372	806	81	633,018	643,453	558	519	64	71	15	185
NEW ENGLAND	385	21	20	3	16,374	16,638	17	41	-	7	1	6
Maine	14	1	-	-	661	831	-	3	-	-	-	-
N H	10	-	2	-	406	419	-	1	-	-	-	-
Vt	4	1	3	2	192	242	-	1	-	-	-	-
Mass	212	6	5	-	6,413	6,492	7	22	-	7	1	6
R I	22	12	-	-	1,261	1,353	-	3	-	-	-	-
Conn	123	1	10	1	7,441	7,301	10	11	-	-	-	-
MID ATLANTIC	3,526	45	84	7	105,640	93,278	32	54	8	7	-	12
Upstate N Y	342	16	31	4	13,013	12,462	13	14	3	-	-	1
N Y City	2,416	8	17	-	59,411	46,733	-	2	-	7	-	10
N J	534	9	10	-	14,196	13,989	10	21	4	-	-	-
Pa	234	12	26	3	19,020	20,094	9	17	1	-	-	1
E N CENTRAL	592	80	240	11	82,125	85,645	15	32	1	4	-	4
Ohio	132	30	77	3	21,210	22,569	3	18	-	-	-	-
Ind	54	17	59	3	9,143	8,985	1	4	-	1	-	-
Ill	274	3	42	4	22,156	21,593	3	-	-	1	-	3
Mich	104	30	41	1	26,572	24,186	8	10	1	2	-	1
Wis	28	-	21	-	3,044	8,312	-	-	-	-	-	-
W N CENTRAL	174	21	51	9	27,206	29,776	6	16	2	1	2	2
Minn	60	9	21	-	3,939	4,397	1	1	-	-	-	1
Iowa	13	2	16	-	2,733	3,217	2	2	2	-	1	-
Mo	64	3	1	-	13,583	14,452	1	8	-	-	1	-
N Dak	2	-	1	-	238	202	-	-	-	-	-	-
S Dak	1	2	10	-	575	564	-	-	-	-	-	-
Nebr	8	1	-	1	2,133	2,498	-	3	-	-	-	-
Kans	26	4	2	8	4,005	4,446	2	2	-	1	-	1
S ATLANTIC	1,244	69	103	29	165,965	168,131	75	121	10	6	7	2
Del	18	2	6	-	2,697	3,151	1	1	-	-	-	-
Md	123	6	25	1	19,480	21,464	8	16	2	1	1	-
D C	162	3	-	1	12,312	11,214	-	1	-	-	-	-
Va	118	1	30	1	13,631	13,921	3	4	2	-	3	1
W Va	7	6	27	-	1,669	1,907	1	3	1	-	1	-
N C	47	7	13	1	25,704	26,483	1	17	1	1	-	-
S C	32	3	-	-	14,391	16,118	-	12	-	-	-	-
Ga	197	11	-	1	27,782	33,599	5	26	1	1	2	-
Fla	540	30	2	24	48,299	40,274	56	41	3	3	-	1
E S CENTRAL	111	37	49	4	51,404	54,837	5	29	2	1	1	1
Ky	25	29	24	1	5,666	6,219	1	4	-	-	-	-
Tenn	53	1	4	1	19,835	20,746	1	11	2	-	-	-
Ala	19	3	20	2	14,688	16,759	1	10	-	1	-	1
Miss	14	4	1	-	11,215	11,113	2	4	-	-	1	-
W S CENTRAL	732	44	112	6	75,670	81,438	76	44	6	13	-	18
Ark	22	5	-	2	7,120	7,957	1	3	1	1	-	-
La	117	1	6	-	13,516	15,745	1	10	-	-	-	1
Okla	27	1	18	-	8,693	8,870	10	5	-	2	-	-
Tex	566	37	88	4	46,341	48,866	64	26	5	10	-	17
MOUNTAIN	221	15	28	1	18,827	19,858	103	67	14	10	3	11
Mont	4	-	1	1	505	552	1	-	-	-	-	-
Idaho	2	-	-	-	584	653	2	1	-	-	-	-
Wyo	4	-	3	-	408	474	-	1	-	-	-	-
Colo	98	3	4	-	4,938	5,927	5	5	-	3	-	3
N Mex	15	1	3	-	1,857	2,285	12	13	-	-	1	-
Ariz	58	11	9	-	6,115	5,722	74	37	12	5	-	5
Utah	13	-	6	-	810	914	7	4	1	2	2	1
Nev	27	-	2	-	3,610	3,331	2	6	1	-	-	2
PACIFIC	2,446	40	119	11	89,807	93,852	229	115	21	22	1	129
Wash	119	-	11	-	6,662	7,205	30	19	-	5	-	15
Oreg	47	-	-	-	3,756	4,714	30	10	4	-	-	-
Calif	2,232	36	105	11	76,411	78,418	167	85	17	17	1	89
Alaska	11	-	3	-	2,009	2,192	2	1	-	-	-	-
Hawaii	37	4	-	-	969	1,323	-	-	-	-	-	25
Guam	-	-	-	-	146	156	-	-	-	-	-	1
P R	77	-	5	-	1,755	2,398	7	35	1	2	-	7
V I	3	-	-	-	182	340	-	2	-	-	-	-
Pac Trust Terr	-	-	-	-	338	655	5	-	-	-	-	39
Amer Samoa	-	-	-	-	31	-	1	-	-	-	-	2

N Not notifiable U Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending September 20, 1986 and September 21, 1985 (38th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	780	7	5,171	2	258	2,471	1,864	46	3,542	120	2,304	2,280	8	415	555
NEW ENGLAND	51	1	83	-	14	126	128	-	53	2	123	107	-	9	12
Maine	2	-	13	-	-	1	23	-	-	-	2	8	-	-	-
N H	3	1	43	-	-	-	6	-	13	1	61	40	-	1	2
Vt	1	-	-	-	-	-	16	-	3	-	3	3	-	1	-
Mass	28	-	24	-	12	118	28	-	9	-	28	35	-	4	6
R I	7	-	2	-	-	-	18	-	9	-	5	14	-	2	-
Conn	10	-	1	-	2	7	37	-	19	1	24	7	-	1	4
MID ATLANTIC	107	-	1,663	2	29	205	303	-	165	5	156	142	-	31	217
Upstate N Y	39	-	77	2†§	23	85	100	-	55	5	103	77	-	23	17
N Y City	29	-	659	-	4	63	65	-	29	-	3	18	-	5	176
N J	20	-	905	-	-	28	30	-	38	-	14	5	-	3	11
Pa	19	-	22	-	2	29	108	-	43	-	36	42	-	-	14
E N CENTRAL	49	4	1,032	-	17	527	256	13	2,395	1	277	558	-	39	29
Ohio	14	-	-	-	10	54	104	-	100	-	117	64	-	1	-
Ind	2	4	29	-	-	57	24	2	34	-	24	174	-	-	1
Ill	15	-	676	-	4	297	68	8	1,799	-	30	54	-	28	12
Mich	15	-	58	-	-	60	54	3	256	1	28	41	-	8	16
Wis	3	-	269	-	3	59	6	-	206	-	78	225	-	2	1
W N CENTRAL	24	-	322	-	17	11	89	1	90	45	278	143	-	11	19
Minn	6	-	45	-	4	6	17	-	1	1	48	72	-	-	2
Iowa	1	-	133	-	1	-	11	1	26	-	18	5	-	1	1
Mo	10	-	25	-	6	2	31	-	17	-	16	27	-	1	7
N Dak	-	-	25	-	1	2	-	-	3	-	4	9	-	1	2
S Dak	-	-	-	-	-	-	5	-	1	-	14	2	-	-	-
Nebr	4	-	-	-	-	-	10	-	-	-	7	4	-	-	-
Kans	3	-	94	-	5	1	15	-	42	44	169	24	-	8	7
S ATLANTIC	97	1	555	-	56	309	336	15	176	23	651	432	1	12	50
Del	1	-	1	-	-	-	2	-	-	-	227	1	-	-	1
Md	13	-	26	-	9	104	44	-	17	-	139	252	-	-	6
D C	1	-	-	-	2	20	4	-	-	-	-	-	-	-	-
Va	25	-	36	-	24	28	59	-	34	1	34	14	-	-	2
W Va	4	-	2	-	-	33	3	1	40	-	23	4	-	-	9
N C	5	-	3	-	1	9	56	-	14	3	61	21	-	-	-
S C	6	-	274	-	-	3	30	-	12	3	16	2	-	-	3
Ga	9	-	79	-	14	8	50	13	28	11	122	84	-	-	-
Fla	33	1	134	-	6	104	88	1	31	5	29	54	1	12	29
E S CENTRAL	18	-	58	-	9	7	102	-	28	1	44	42	-	4	3
Ky	5	-	-	-	6	5	24	-	6	-	5	8	-	4	3
Tenn	1	-	55	-	1	1	37	-	17	1	16	19	-	-	-
Ala	8	-	1	-	1	-	29	-	4	-	23	11	-	-	-
Miss	4	-	2	-	1	1	12	-	1	-	-	4	-	-	-
W S CENTRAL	75	1	599	-	38	429	166	3	157	15	189	324	5	62	32
Ark	-	-	276	-	2	-	25	-	7	-	12	12	-	-	1
La	14	-	4	-	-	42	23	1	3	-	13	11	-	-	-
Okla	9	-	37	-	2	1	22	N	N	6	101	141	-	-	1
Tex	52	1	282	-	34	386	96	2	147	9	63	160	5	62	30
MOUNTAIN	30	-	300	-	26	534	93	6	215	5	222	164	-	23	6
Mont	-	-	-	-	8	137	8	-	5	-	14	8	-	2	-
Idaho	1	-	1	-	-	137	3	1	8	-	33	11	-	-	2
Wyo	-	-	-	-	-	-	2	-	-	-	4	-	-	1	-
Colo	8	-	2	-	5	13	15	-	12	3	62	63	-	1	-
N Mex	5	-	32	-	7	6	9	N	N	-	20	11	-	-	2
Ariz	10	-	252	-	6	241	21	5	175	-	50	27	-	2	1
Utah	3	-	12	-	-	-	9	-	10	2	35	44	-	14	-
Nev	3	-	1	-	-	-	26	-	5	-	4	-	-	3	1
PACIFIC	329	-	559	-	52	323	391	8	263	23	364	368	2	224	187
Wash	22	-	158	-	25	72	54	-	8	5	107	60	1	15	14
Oreg	15	-	4	-	4	5	31	N	N	-	10	40	-	1	1
Calif	291	-	370	-	22	222	290	8	231	16	235	222	1	203	123
Alaska	-	-	-	-	-	-	11	-	6	-	2	29	-	-	1
Hawaii	1	-	27	-	1	24	5	-	18	2	10	17	-	5	48
Guam	1	-	4	-	1	11	-	-	4	-	-	-	-	3	2
P R	4	-	33	-	-	63	3	-	31	-	13	10	-	60	25
V I	-	-	-	-	-	10	-	-	13	-	-	-	-	-	-
Pac Trust Terr	-	-	-	-	-	-	1	-	10	-	-	-	-	2	-
Amer Samoa	-	-	2	-	-	-	-	-	4	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending Sept○mber 20, 1986 and September 21, 1985 (38th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	18,880	19,373	6	15,780	15,431	106	211	606	4,008
NEW ENGLAND	349	418	-	500	525	1	12	12	5
Maine	15	13	-	33	38	-	-	-	-
N H	10	29	-	19	18	-	-	2	-
Vt	8	6	-	14	5	-	-	-	-
Mass	192	201	-	259	315	1	10	4	-
R I	18	14	-	40	38	-	-	3	3
Conn	106	155	-	135	111	-	2	3	2
MID ATLANTIC	2,714	2,594	-	3,192	2,847	1	17	30	489
Upstate N Y	140	185	-	460	503	-	3	18	64
N Y City	1,536	1,589	-	1,652	1,368	-	8	5	-
N J	484	508	-	561	390	1	5	2	16
Pa	554	312	-	519	586	-	1	5	409
E N CENTRAL	700	748	1	1,899	1,885	-	17	56	103
Ohio	97	114	-	334	334	-	4	51	9
Ind	86	67	-	204	237	-	2	-	16
Ill	351	362	-	797	807	-	2	2	29
Mich	125	157	1	471	397	-	7	3	21
Wis	41	48	-	93	110	-	2	-	28
W N CENTRAL	158	159	1	472	426	31	8	39	635
Minn	28	34	-	110	90	-	1	1	90
Iowa	6	17	-	39	44	1	-	1	146
Mo	85	78	-	238	210	23	6	20	65
N Dak	3	2	-	6	8	-	-	1	134
S Dak	4	5	-	23	21	2	-	6	126
Nebr	11	7	1	7	13	1	-	4	25
Kans	21	16	-	49	40	4	1	6	49
S ATLANTIC	5,735	5,734	1	3,078	3,127	9	32	277	960
Del	44	28	-	33	31	-	1	1	1
Md	316	344	-	233	278	2	11	28	467
D C	214	247	-	104	123	1	4	-	26
Va	265	216	-	259	274	2	6	44	137
W Va	18	15	-	90	81	-	3	8	35
N C	384	495	-	426	387	1	3	100	9
S C	479	605	1	399	386	-	-	62	47
Ga	1,101	1,004	-	477	530	3	-	32	157
Fla	2,934	2,780	-	1,057	1,037	-	4	2	81
E S CENTRAL	1,256	1,458	-	1,393	1,372	8	3	80	262
Ky	58	49	-	330	330	3	-	19	71
Tenn	459	463	-	402	391	4	1	35	97
Ala	409	470	-	446	411	1	1	15	92
Miss	330	476	-	215	240	-	1	11	2
W S CENTRAL	3,746	4,454	1	1,974	1,910	47	15	103	576
Ark	175	224	-	266	207	34	-	8	131
La	641	785	-	320	265	1	1	-	17
Okla	101	135	-	187	187	7	1	80	52
Tex	2,829	3,310	1	1,201	1,251	5	13	15	376
MOUNTAIN	427	506	2	370	409	7	11	8	558
Mont	6	5	-	20	46	1	1	4	178
Idaho	10	4	1	17	20	-	-	-	8
Wyo	1	7	-	-	5	-	-	1	236
Colo	105	130	-	31	50	3	1	3	26
N Mex	51	95	-	72	72	1	-	-	6
Ariz	171	232	-	179	178	-	6	-	93
Utah	13	5	1	28	12	1	2	-	3
Nev	70	28	-	23	26	1	1	-	8
PACIFIC	3,795	3,302	-	2,902	2,930	2	96	1	420
Wash	110	86	-	139	165	-	3	-	5
Oreg	84	69	-	98	96	-	-	-	-
Calif	3,575	3,094	-	2,492	2,458	1	88	1	407
Alaska	1	2	-	37	71	1	1	-	8
Hawaii	25	51	-	136	140	-	4	-	-
Guam	1	2	-	34	34	-	1	-	-
P R	661	594	-	245	262	-	5	-	35
V I	1	2	-	1	1	-	-	-	-
Pac Trust Terr	200	92	-	52	44	-	45	-	-
Amer Samoa	-	-	-	5	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending September 20, 1986 (38th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	656	439	135	44	22	16	41
Boston, Mass	176	104	42	15	9	6	19
Bridgeport, Conn	37	29	5	2	1	-	4
Cambridge, Mass	23	19	3	1	-	-	2
Fall River, Mass	31	23	6	1	1	-	-
Hartford, Conn	67	35	20	7	2	3	1
Lowell, Mass	22	13	8	-	1	-	1
Lynn, Mass	18	12	5	1	-	-	-
New Bedford, Mass	19	17	2	-	-	-	-
New Haven, Conn	56	43	4	3	3	3	3
Providence, R I	65	42	17	3	-	3	3
Somerville, Mass	9	7	2	-	-	-	-
Springfield, Mass	50	33	9	5	3	-	5
Waterbury, Conn	25	16	6	1	2	-	1
Worcester, Mass	58	46	6	5	-	1	2
MID ATLANTIC	2,564	1,655	524	249	72	58	111
Albany, N Y	49	34	7	5	1	2	-
Allentown, Pa	20	19	1	-	-	-	-
Buffalo, N Y	134	88	31	10	-	5	5
Camden, N J	42	26	11	2	-	3	3
Elizabeth, N J	29	20	6	2	-	1	3
Erie, Pa †	37	26	10	1	-	-	3
Jersey City, N J	43	30	10	2	1	-	-
N Y City, N Y	1,328	843	269	145	46	25	55
Newark, N J	86	44	15	20	4	3	6
Paterson, N J	33	20	9	3	1	-	2
Philadelphia, Pa	316	194	70	33	13	6	19
Pittsburgh, Pa †	71	44	17	4	1	5	1
Reading, Pa	28	18	4	-	-	-	3
Rochester, N Y	112	75	22	8	2	5	3
Schenectady, N Y	33	26	7	-	-	-	-
Scranton, Pa †	33	24	8	1	-	-	3
Syracuse, N Y	66	52	9	3	1	1	1
Trenton, N J	37	23	8	4	1	1	-
Utica, N Y	31	26	2	3	-	-	3
Yonkers, N Y	36	23	8	3	1	1	1
E N CENTRAL	2,376	1,531	496	181	81	87	70
Akron, Ohio	71	44	13	4	5	5	1
Canton, Ohio	39	30	6	2	1	-	1
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	137	96	24	8	2	7	8
Cleveland, Ohio	199	113	54	18	8	6	9
Columbus, Ohio	126	70	31	11	7	7	3
Dayton, Ohio	121	80	27	10	2	2	-
Detroit, Mich	233	140	44	29	12	8	6
Evansville, Ind	57	40	9	4	1	3	1
Fort Wayne, Ind	59	48	8	1	1	1	1
Gary, Ind	20	10	6	3	-	1	-
Grand Rapids, Mich	74	52	14	4	2	2	-
Indianapolis, Ind	189	107	48	12	13	9	3
Madison, Wis	33	20	6	3	1	3	3
Milwaukee, Wis	141	109	21	5	3	3	7
Peoria, Ill	39	33	3	-	-	3	5
Rockford, Ill	52	34	10	4	3	1	3
South Bend, Ind	43	28	10	2	3	-	-
Toledo, Ohio	105	69	21	10	2	3	2
Youngstown, Ohio	74	46	16	6	5	1	1
W N CENTRAL	730	501	137	43	23	26	27
Des Moines, Iowa	62	38	14	5	3	2	2
Duluth, Minn §	32	24	7	1	-	-	-
Kansas City, Kans	35	19	9	4	2	1	2
Kansas City, Mo	114	73	27	9	3	2	3
Lincoln, Nebr	38	29	3	3	2	1	2
Minneapolis, Minn	80	52	16	4	3	5	1
Omaha, Nebr	80	52	18	4	-	6	4
St Louis, Mo	155	113	24	7	4	7	8
St Paul, Minn	74	57	10	3	3	1	-
Wichita, Kans	60	44	9	3	3	1	5

Reporting Area	All Causes, By Age (Years)					
	All Ages	≥65	45-64	25-44	1-24	<1
S ATLANTIC	1,392	876	296	120	38	62
Atlanta, Ga	185	98	50	21	12	4
Baltimore, Md	221	152	40	13	6	10
Charlotte, N C	71	44	22	3	1	1
Jacksonville, Fla	122	73	33	12	3	1
Miami, Fla	111	60	32	15	2	2
Norfolk, Va	65	46	10	4	-	5
Richmond, Va	75	57	11	5	-	2
Savannah, Ga	55	36	6	5	2	6
St Petersburg, Fla	180	148	15	8	2	7
Tampa, Fla	74	45	12	8	2	7
Washington, D C	202	94	59	26	6	17
Wilmington, Del	31	23	6	-	2	-
E S CENTRAL	875	531	220	75	23	26
Birmingham, Ala	129	84	30	8	3	4
Chattanooga, Tenn	73	48	17	4	3	1
Knoxville, Tenn	58	44	9	1	1	3
Louisville, Ky	123	74	29	10	4	6
Memphis, Tenn	268	142	75	45	4	2
Mobile, Ala	95	55	31	3	4	2
Montgomery, Ala	22	17	1	-	-	4
Nashville, Tenn	107	67	28	4	4	4
W S CENTRAL	1,306	774	277	134	63	58
Austin, Tex	56	32	12	8	4	-
Baton Rouge, La	41	20	11	4	3	3
Corpus Christi, Tex	47	30	9	4	3	1
Dallas, Tex	208	122	40	24	11	11
El Paso, Tex	75	45	11	7	6	6
Fort Worth, Tex	100	56	16	10	9	9
Houston, Tex	238	126	59	36	10	7
Little Rock, Ark	57	28	19	7	1	2
New Orleans, La	93	53	27	6	4	3
San Antonio, Tex	212	138	43	13	8	10
Shreveport, La	60	31	16	9	1	3
Tulsa, Okla	119	93	14	6	3	3
MOUNTAIN	613	386	126	42	34	25
Albuquerque, N Mex	76	45	13	11	5	2
Colo Springs, Colo	50	37	8	1	-	4
Denver, Colo	100	68	14	7	6	5
Las Vegas, Nev	77	47	25	2	2	1
Ogden, Utah	14	12	1	-	1	-
Phoenix, Ariz	133	66	33	12	15	7
Pueblo, Colo	19	16	1	1	1	-
Salt Lake City, Utah	49	27	11	4	2	5
Tucson, Ariz	95	68	20	4	2	1
PACIFIC	1,738	1,128	337	154	60	51
Berkeley, Calif	10	6	2	1	1	-
Fresno, Calif	71	49	13	4	3	2
Glendale, Calif	21	13	6	2	-	-
Honolulu, Hawaii	63	42	13	6	2	-
Long Beach, Calif	94	59	27	5	1	2
Los Angeles, Calif	509	321	92	53	25	13
Oakland, Calif	66	45	7	9	3	2
Pasadena, Calif	43	36	4	1	1	1
Portland, Oreg	121	88	22	5	5	1
Sacramento, Calif	103	58	26	13	3	3
San Diego, Calif	145	86	25	13	6	12
San Francisco, Calif	150	90	33	19	1	7
San Jose, Calif	136	91	30	9	3	3
Seattle, Wash	126	83	25	10	4	4
Spokane, Wash	46	38	6	1	1	-
Tacoma, Wash	34	23	6	3	1	1
TOTAL	12,250††	7,821	2,548	1,042	416	409

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*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

†Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages

§Data not available. Figures are estimates based on average of past 4 weeks.

EXPERIENCES WITH IMMUNIZATION OF HTLV-III/LAV-INFECTED PERSONS

Some children infected perinatally with HTLV-III/LAV have received routine immunization with OPV and MMR before their illnesses were recognized. Out-patient medical records from New York City and Miami for 213 children with symptomatic HTLV-III/LAV infection (AIDS and ARC), presumably acquired during the perinatal period, were reviewed to determine immunization history and possible vaccine-associated adverse events (*24,25*). One hundred seventy-one children (80%) had received at least one dose of OPV and diphtheria and tetanus toxoids and pertussis vaccine (DTP), 95 (45%) had completed primary immunization with OPV and DTP (three doses and four doses, respectively), and 63 (30%) had received MMR or measles vaccine. Thirty-eight (39%) of 98 children who had available records of dates of immunization and onset of symptoms consistent with HTLV-III/LAV infection had received at least one live-virus vaccine after symptom onset. No serious or unusual adverse events were noted in the medical records of these children following immunization.

Only one adverse event following immunization of an HTLV-III/LAV-infected person has been documented. A 19-year-old asymptomatic army recruit received multiple immunizations during basic training, including primary immunization with smallpox vaccine (*26*). Two and one-half weeks later, he developed cryptococcal meningitis and was diagnosed as having AIDS. One and one-half weeks later, while being treated for meningitis, he developed lesions of disseminated vaccinia. He was treated with vaccinia immune globulin and recovered from vaccinia, but has since died of AIDS.

CDC has not received any reports of vaccine-associated poliomyelitis among HTLV-III/LAV-infected vaccine recipients or their contacts or among other persons known to be infected with HTLV-III/LAV. There have been no reports of serious adverse events following MMR administration from areas in which pediatric AIDS cases are occurring.

IMMUNIZING CHILDREN WHO MAY BE INFECTED WITH HTLV-III/LAV: SPECIAL CONSIDERATIONS

Children born to women who are at risk of HTLV-III/LAV infection or who are known to be infected with HTLV-III/LAV should be evaluated for infection with the virus—including being tested for antibody (*4,27*). For asymptomatic children presenting for immunization, this evaluation and testing is not necessary to make decisions about immunizations. Children infected with HTLV-III/LAV are best cared for by pediatricians knowledgeable in the management of patients with this infection. Since little information is currently available on the safety and efficacy of immunizing children who may be infected with HTLV-III/LAV, special studies of these children need to be conducted.

RECOMMENDATIONS

Children with symptomatic HTLV-III/LAV infection

A. Live-virus and live-bacterial vaccines (e.g., MMR, OPV, BCG) should not be given to children and young adults who are immunosuppressed in association with AIDS or other clinical manifestations of HTLV-III/LAV infection. For routine immunizations, these persons should receive inactivated poliovaccine (IPV) and should be excused for medical reasons from regulations requiring measles, rubella, and/or mumps immunization.

B. Concerns have been raised that stimulation of the immune system by immunization with inactivated vaccines in these individuals might cause deterioration in immunologic function. However, such effects have not been noted thus far among children with AIDS or among other immunosuppressed individuals after immunization with inactivated vaccines. The potential benefits of immunization of these children outweigh the concerns of theoretical adverse events. Immunization with DTP, IPV, and *Haemophilus influenzae* type b vaccines

ACIP: Immunization of Children — Continued

is recommended in accordance with the ACIP recommendations, although immunization may be less effective than it would be for immunocompetent children (*28-30*).

C. As with other conditions that produce chronic immunosuppression, the Committee recommends annual immunization with inactivated influenza vaccine for children over 6 months of age and one-time administration of pneumococcal vaccine for children over 2 years of age (*31-33*).

D. Children and young adults with AIDS or other clinical manifestations of HTLV-III/LAV infection—as other immunosuppressed patients—may be at increased risk of having serious complications of infectious diseases, such as measles and varicella. Following significant exposure to measles or varicella, these persons should receive passive immunization with immune globulin (IG) or varicella-zoster immune globulin (VZIG), respectively (*20,34*).¶

Children with previously diagnosed asymptomatic HTLV-III/LAV infection

A. A small number of children and young adults known to be infected with HTLV-III/LAV but without overt clinical manifestations of immunosuppression have received live-virus vaccines without adverse consequences. Further experience needs to be monitored, but on the basis of data now available, the Committee believes that such persons should be vaccinated with MMR in accordance with ACIP recommendations (*20-22*). Vaccinees should be followed for possible adverse reactions and for the occurrence of vaccine-preventable diseases since immunization may be less effective than for uninfected persons.

B. Available data suggest that OPV can be administered without adverse consequences to HTLV-III/LAV-infected children who do not have overt clinical manifestations of immunosuppression. However, because family members of such children may be immunocompromised due to AIDS or HTLV-III/LAV infection and therefore at increased risk of paralysis from contact with spread vaccine virus, it may be prudent to use IPV routinely to immunize asymptomatic children with previously diagnosed HTLV-III/LAV infection (*28*).

C. Immunization with DTP and *Haemophilus influenzae* type b vaccines is recommended in accordance with ACIP recommendations (*29,30*).

Children not known to be infected with HTLV-III/LAV

Children and young adults not known to be infected with HTLV-III/LAV should be immunized in accordance with ACIP recommendations.

Children residing in the household of a patient with AIDS

Children whose household members are known to be immunocompromised due to AIDS or other HTLV-III/LAV infections should not receive OPV because vaccine viruses are excreted by the recipient of the vaccine and may be communicable to their immunosuppressed contacts. These children should receive IPV for routine immunization (*28*). Because extensive experience has shown that live, attenuated MMR vaccine viruses are not transmitted from vaccinated individuals to others, MMR may be given to a child residing in the household of a patient with AIDS (*20-22*).

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¶Some physicians administer full replacement doses of intravenous IG on a 2-4 week schedule to children with AIDS and other clinical manifestations of HTLV-III/LAV infection. This therapy may provide some protection against such diseases as measles and varicella.

ACIP: Immunization of Children — Continued

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ACIP: Immunization of Children — Continued

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Epidemiologic Notes and Reports

Toxigenic *Vibrio cholerae 01* Infections — Louisiana and Florida

Four cases of cholera acquired in Louisiana and one case acquired in Florida have been detected since mid-August 1986. All five patients were hospitalized with severe diarrhea and had stool cultures yielding toxigenic *Vibrio cholerae 01*, serotype Inaba.

The four Louisiana patients had onset between August 8 and September 9; they lived in New Orleans and three towns south and west of New Orleans. The single confirmed case in Florida occurred in a woman from California who arrived in Miami on August 18 and became ill with diarrhea on August 24. The patients had no known common source exposures, and the vehicles of transmission are still under investigation, but all had eaten seafood within 5 days before onset of symptoms. The Louisiana patients had eaten crabs and shrimp from multiple sites along the Louisiana coast of the Gulf of Mexico. The Florida patient had eaten raw oysters; their source is being traced.

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Editorial Note: Although the vehicles of transmission for these cases are as yet unknown, the patients' exposures to seafood have been of particular interest because seafood has been an important vehicle for cholera in several countries, including the United States. Toxigenic *V. cholerae 01*, serotype Inaba, biotype El Tor, appears to have an environmental reservoir on the U.S. Gulf Coast, and domestically acquired cases of cholera with identical organisms were detected in 1973, 1978, 1981, and 1984 (*1-4*). Almost all of the cases occurred during the summer and fall. The vehicles of transmission implicated in those instances were boiled or steamed crabs and rice that was contaminated after being boiled. *V. cholerae 01* has been shown to survive in crabs boiled for 8 minutes, but not in crabs boiled for 10 minutes (*1*).

Toxigenic *V. cholerae 01* multiplies readily in a variety of foods. Foodborne cholera is prevented by the same measures that are routinely stressed in prevention of other bacterial foodborne diseases: thorough cooking of any possibly contaminated foods, preventing contamination of foods after cooking, and storing foods that are not eaten soon after cooking at temperatures too low (below 4 C) or too high (above 60 C) to permit multiplication of the organism. Waterborne cholera is prevented by chlorination of water supplies. The disease is rarely, if ever, spread by person-to-person contact.

Cholera can be confirmed by stool culture, preferably on thiosulfate-citrate-bile salts-sucrose (TCBS) agar. If *V. cholerae* is isolated from stool, the isolate should be serogrouped and assayed for cholera toxin production; arrangements for this testing can be made through

Vibrio cholerae 01 *Infections — Continued*

state public health laboratories. Cases of cholera should be reported immediately to state epidemiologists.

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Errata: Vol. 35, No. 32

p. 528 In the article, "Measles—United States, First 26 Weeks, 1986," the last sentence in the initial paragraph of the Editorial Note should read: "Although the number of reported cases still represents less than 1% of that in the prevaccine era, when an average of more than 500,000 cases was reported annually . . . ."

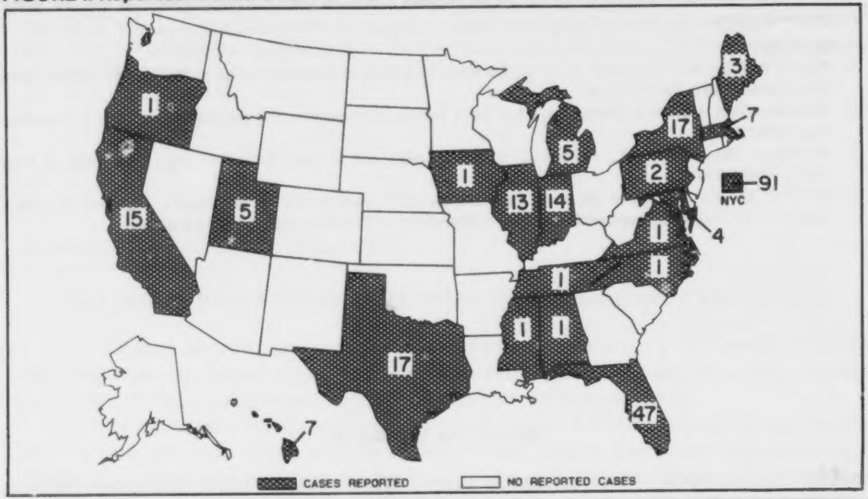
Vol. 35, No. 25

p. 415 In the article entitled "The Secretary's Community Health Promotion Awards," the third listing under *Nutrition* should read: "First Free Cholesterol Screening Project (Grand Island, Nebraska)."

Vol 35, No. 14

p. 233 In the article entitled "Safety of Therapeutic Immune Globulin Preparations with Respect to Transmission of Human T-Lymphotopic Virus Type III/Lymphadenopathy-Associated Virus Infection," the fourth reference should read: "Wells MA, Wittex, AE, Epstein JS, et al. Inactivation and partition of human T-cell lymphotropic virus, type III, during ethanol fractionation of plasma. Transfusion 1986;26:210-3."

FIGURE I. Reported measles cases — United States, weeks 34-37, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report,* Centers for Disease Control, Atlanta, Georgia 30333.

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CENTERS FOR DISEASE CONTROL

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MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

609 Acquired Immunodeficiency Syndrome (AIDS) in Western Palm Beach County, Florida
613 Leading Work-Related Diseases and Injuries
621 Misclassification of Maternal Deaths — Washington State

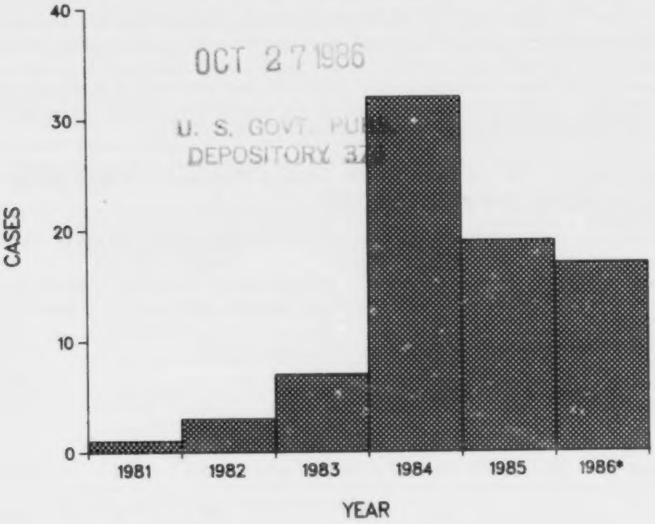
Epidemiologic Notes and Reports

Acquired Immunodeficiency Syndrome (AIDS) in Western Palm Beach County, Florida

From July 1982 through September 15, 1986, 79 persons meeting the surveillance case definition for acquired immunodeficiency syndrome (AIDS) were reported from western Palm Beach County, Florida. These patients were residents of the towns of Belle Glade (62 case-patients), Pahokee (seven case-patients), and South Bay (10 case-patients) at the time of onset of their illnesses. The number of cases is shown by year of diagnosis in Figure 1. Based upon 1980 census data, the calculated cumulative incidence for AIDS in these three towns is 295/100,000 population. In comparison, the overall cumulative incidence for AIDS in the United States is 10.8/100,000.

Selected characteristics of these 79 AIDS patients are listed in Table 1. Sixty-four patients

FIGURE 1. Acquired immunodeficiency syndrome cases, by year of diagnosis — western Palm Beach County, Florida, 1981-1986



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*Cases reported through September 15, 1986.

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AIDS – Continued

were male; all but three of the patients were at least 13 years of age. The three pediatric patients were born to mothers infected with human lymphotropic virus type-III/lymphadenopathy-associated virus (HTLV-III/LAV), the virus that causes AIDS.* Of the 76 adult patients, 63 (82.8%) were members of population groups known to be at increased risk for HTLV-III/LAV infection or were born in Haiti, a country in which heterosexual contact plays a major role in transmission of HTLV-III/LAV (*1,2*). The remaining 13 (11 men, two women) adult patients had no reported risk factors for AIDS, but 10 of these 13 died before epidemiologic investigations could be completed.

Compared with other adult AIDS case-patients reported from Florida in the period, adult AIDS patients from western Palm Beach County were more likely to be reported as heterosexual intravenous (IV) drug abusers (31.6% vs. 13.1%, $p < 0.05$), as sex partners of persons at increased risk of having AIDS (35.5% vs. 18.5%, $p < 0.01$), or as persons with no reported risk factors for AIDS (17.1% vs. 4.8%, $p < 0.01$).

Detailed information is available for the 62 case-patients from Belle Glade. Most of the AIDS patients lived in an area in the central part of town, comprising a population of 7,207 persons (1980 Decennial Census, Neighborhood Statistics Program). This area of Belle Glade is characterized by high rates of IV drug abuse and sexually transmitted diseases (*3*). Investigations in May 1985, May 1986, and August 1986 revealed that 19 adults with AIDS in Belle Glade could be directly linked to at least one other reported AIDS case by sexual contact, by sharing of needles during IV drug abuse, or both. These linked patients account for 32.2% of the 59 adult AIDS case-patients reported from Belle Glade between February 1982 and August 1986. Five of the 10 adult women reported as having AIDS during this time were prostitutes; four of the five were also IV drug abusers.

To evaluate the prevalence of and risk factors for HTLV-III/LAV infection in Belle Glade, a community-wide study was conducted from February through September 1986 by the Florida Department of Health and Rehabilitative Services (DHRS) and CDC. The town was divided into neighborhoods as determined by the 1980 decennial census. A proportionate-sampling scheme was used to interview and test persons living in and around the neighborhoods in

---

*The designation "human immunodeficiency virus" (HIV) has been accepted by a subcommittee of the International Committee for the Taxonomy of Viruses as the appropriate name for the retrovirus that has been implicated as the causative agent of AIDS (Science 1986;232:697).

Table 1. AIDS cases in western Palm Beach County, Florida, by patient characteristics, city of residence, and sex, September 15, 1986

	Belle Glade		Pahokee/South Bay		
Characteristics	**Male**	**Female**	**Male**	**Female**	**Total (%)**
Adult patients					
Homosexual/bisexual	9	0	1	0	10 (12.7)
Heterosexual IV drug abuser	10	4	8	2	24 (30.4)
Transfusion-associated	0	2	0	0	2 (2.5)
Heterosexual patient*	23	3	1	0	27 (34.2)
None of the above	7	1	4	1	13 (16.5)
Pediatric patients					
Mother with AIDS	1	2	0	0	3 (3.8)
Total	**50**	**12**	**14**	**3**	**79(~100.0)**

*Includes 10 persons who had heterosexual contact with a person with AIDS or at increased risk of AIDS, and 17 persons born in Haiti, where heterosexual transmission is believed to play a major role.

AIDS – Continued

which most of the AIDS patients resided. Preliminary results of this study indicate that 30 (3.1%) of 959 persons tested had detectable antibodies to HTLV-III/LAV by both enzyme immunoassay and Western-blot methods. One of the 30 persons had been diagnosed as having AIDS.

Sex-, age-, and race-specific seroprevalence rates have been calculated for the first 736 persons for whom data entry has been completed. Fourteen (3.7%) of 378 males and 12 (3.4%) of 358 females had antibodies to HTLV-III/LAV. None of 121 children ages 2-10 years had antibodies to HTLV-III/LAV. Other HTLV-III/LAV-antibody prevalence rates by age group were as follow: 14 (8.9%) of 157 persons ages 18-29; seven (4.4%) of 160 persons ages 30-39; two (1.8%) of 113 persons ages 40-49; three (3.2%) of 91 persons ages 50-59; and none of 94 persons over 60 years of age. Eighty-eight percent of seropositive adults were ages 18-49 years; 90% of adult AIDS case-patients reported in the United States are in that same age group. Twenty-six (4.2%) of 616 black-not-Hispanic persons tested had antibodies to HTLV-III/LAV, including 13 (8.7%) of 150 persons born in Haiti. None of 42 Hispanic persons and none of 60 white-not-Hispanic persons were seropositive. There was no clustering of persons infected with HTLV-III/LAV within households, except for four instances of infection involving two pairs of sexual partners. Further analyses are in progress to determine specific risk factors for infection.

Arthropods have been hypothesized as a mode of HTLV-III/LAV transmission in Belle Glade (*4*). As a measure of exposure to different mosquito vectors and antibody prevalence, samples obtained during the serosurvey were tested by the serum dilution-plaque reduction neutralization method in the Division of Vector-Borne Viral Diseases, CDC, for antibodies to five arboviruses (Tensaw, Maguari, Keystone, Saint Louis encephalitis, and dengue-2) prevalent in South Florida or the Caribbean (Table 2). There was no significant difference in prevalence of antibodies to these arboviruses between HTLV-III/LAV-infected and -noninfected persons. The lack of association between detection of antibodies to HTLV-III/LAV and antibodies to these arboviruses extends the findings of an earlier pilot study that included these and four other arboviruses (Pahayokee, Shark River, Gumbo Limbo, and Mahogany Hammock) indigenous to South Florida (*5*).

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Editorial Note: The high rate of AIDS in western Palm Beach County has focused national attention on this area. The cumulative AIDS incidence in this area (295/100,000 population) is

TABLE 2. Results of testing* for antibody to five arboviruses, by HTLV-III/LAV antibody status, community survey, Belle Glade, Florida, 1986

HTLV-III/LAV antibody status	Number of persons positive for antibody to arbovirus				
	Tensaw	Maguari	Keystone	St. Louis encephalitis	Dengue-2†
Positive (n=27)	1 (3.7%)	3 (11.1%)	1 (3.7%)	3 (11.1%)	8 (29.6%)
Negative (n=603)	81 (13.4%)	106 (17.6%)	79 (13.1%)	79 (13.1%)	91 (15.1%)

*Serum dilution-plaque reduction neutralization technique.

†This difference is not statistically significant by the Cochran-Mantel-Haenszel test for association between HTLV-III/LAV and dengue-2, after controlling for previous residence in Haiti, where dengue viruses are endemic.

comparable to that of the City of San Francisco (316/100,000) and the borough of Manhattan (270/100,000)—areas with the highest incidence of AIDS in the United States. In western Palm Beach County, the high cumulative rate is largely the result of high rates of AIDS among IV drug abusers and their sexual partners.

Thirteen (17.1%) of 76 adult patients in western Palm Beach County with AIDS had no reported risk factors. Although this proportion is significantly higher than in other areas in Florida, 10 of the 13 case-patients died before they could be comprehensively interviewed to obtain additional epidemiologic information on risk factors. Nationally, 72.9% of AIDS case-patients who were initially reported as persons without known risk factors, and who were available for follow-up, have been reclassified (*6*). AIDS cases are not categorized as resulting from heterosexual transmission unless the index partner of the AIDS patient is known a) to be infected with HTLV-III/LAV, b) to have AIDS, or c) to belong to another risk group. Therefore, if no such information is available concerning the relevant sexual partners, a case is characterized as having no risk factors.

Thus far, findings of the community-based study demonstrate a high prevalence of HTLV-III/LAV infection among younger adults of both sexes (i.e.,.18-29 years of age), while no children and no adults over age 60 have had evidence of infection with HTLV-III/LAV. Additionally, serologic findings for household members of HTLV-III/LAV-infected persons did not show any evidence of viral transmission through casual contact. Infection with HTLV-III/LAV was not associated with arbovirus infection, suggesting that HTLV-III/LAV-infected persons were not more likely than persons without HTLV-III/LAV infection to have been exposed to mosquitoes. Thus, the hypothesis that arthropods have transmitted HTLV-III/LAV in Belle Glade is not supported by AIDS surveillance data, age-specific rates of HTLV-III/LAV infection, and the arbovirus serologic studies.

The available epidemiologic evidence suggests that HTLV-III/LAV infection in Belle Glade results predominantly from sexual transmission and the use of contaminated needles for injecting drugs intravenously. The U.S. Public Health Service has published guidelines to prevent sexual and drug-abuse-related transmission of HTLV-III/LAV (*7*). In this setting of a high cumulative rate of AIDS and a high prevalence of HTLV-III/LAV infection, programs to promote risk-reduction practices must be expanded and adopted. Additionally, voluntary serologic testing combined with health education and counseling should continue to be available to enhance reduction of HTLV-III/LAV transmission.

The ongoing analyses of the community-wide DHRS/CDC study should further clarify specific risk factors for HTLV-III/LAV infection in Belle Glade and provide a basis for additional public health recommendations for the prevention of infection with this virus.

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Current Trends

Leading Work-Related Diseases and Injuries

The National Institute for Occupational Safety and Health (NIOSH) has developed a suggested list of 10 leading work-related diseases and injuries and has described the first nine categories on that list. A discussion of the tenth and final category, Psychological Disorders, appears below.*

PSYCHOLOGICAL DISORDERS

There is increasing evidence that an unsatisfactory work environment may contribute to psychological disorders. Studies have shown that factors contributing to an unsatisfactory work environment may include work overload, lack of control over one's work, nonsupportive supervisors or co-workers, limited job opportunities, role ambiguity or conflict, rotating shift-work, and machine-paced work (*1-4*). Psychological disorders that can result from such factors may be classified as a) affective disturbances (e.g., anxiety, irritability), b) behavioral problems (e.g., substance abuse, sleep difficulties), c) psychiatric disorders (e.g., neuroses), and d) somatic complaints (e.g., headache, gastrointestinal symptoms). In addition to psychological disorders, stressful working conditions may have a systemic influence, possibly affecting the etiology and/or prognosis of other disease states, as suggested by recent studies of stress-related immunologic suppression (*5*).

Although data bases currently available for determining the extent of work-related psychological disorders are limited, several indicators suggest that these problems impose substantial health and financial costs in the United States. A recent study in California showed that claims for the development of "work-related neuroses" more than doubled during 1980-1982; claims for all other disabling work-related injuries during the same period actually decreased by about one-tenth (*6*). A study of representative medical claims throughout the country showed that during 1980-1982 claims for "mental stress" that developed gradually (i.e., a chronic problem unrelated to a single traumatic incident or to any physical work-related disorder) accounted for about 11% of all occupational disease claims (*7*). Average medical costs and indemnity payments in 1981-1982 for these forms of mental stress actually surpassed the average amounts for other occupational diseases (*7*). The American Psychiatric Association now lists occupational stress in its *Diagnostic and Statistical Manual* as a subcategory of the major diagnostic axis of "psychosocial stress" (*8*).

There are increasing data on the relationship between specific working conditions and psychological disorders. For example, in a questionnaire survey of over 2,000 workers in 23 different occupations, strong occupational differences were found in psychosocial job stressors and in somatic and affective complaints (*1*). Ratings of boring, repetitive job tasks and role ambiguity were more prominent among several classes of blue-collar workers (e.g., assembly-line workers, fork-lift truck drivers, and machine operators) than among white-collar professionals (e.g., professors and family physicians). The most satisfied occupational groups were physicians, professors, and white-collar supervisors. Groups experiencing the highest levels of job stressors and their resultant ill effects were assemblers and relief workers on machine-paced assembly lines.

NIOSH investigators ranked 130 occupations by rate of admission to community mental health centers in Tennessee to determine the relative risk of psychological or stress-related

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*References to the previous articles are given in the most recent article: MMWR 1986;35:561.

Work-Related Diseases and Injuries — Continued

disorders by occupation (*9*). Heading the list were jobs in health care, service occupations, and blue-collar factory work—which tend to be characterized by stress-producing conditions such as a lack of control over the job by the worker, repetitive work, shift work, and a responsibility for others.[†] In other studies, workers on night and rotating shifts (including the health-care occupations) reported more disturbances of sleep; altered eating habits; and higher rates of visits to clinics, absences due to sickness, and on-the-job injuries than did those on fixed day shifts (*10-12*).

Work environments characterized by technological innovation have also been investigated; a major focus has been on office work influenced by the introduction of computers (*13,14*). "Adverse working conditions" (e.g., poorer physical environment, reduced job control and social support) tend to be reported more frequently by workers using new-technology office equipment such as video display terminals. Some of these conditions have been linked to chronic stress-related disorders (*4,15*).

[†] These results represent findings in only one state (Tennessee), and occupational groups may differ considerably in their patterns of use of community mental health centers.

(Continued on page 619)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	39th Week Ending			Cumulative, 39th Week Ending		
	Sept. 27, 1986	Sept. 28, 1985	Median 1981-1985	Sept. 27, 1986	Sept. 28, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	135	198	N	9,563	5,782	N
Aseptic meningitis	389	489	369	7,072	6,993	6,921
Encephalitis: Primary (arthropod-borne & unspec.)	48	36	65	855	896	1,099
Post-infectious	1	1	-	82	101	75
Gonorrhea: Civilian	17,716	19,095	19,242	651,029	662,548	672,604
Military	306	438	438	12,280	16,004	18,263
Hepatitis: Type A	442	564	489	16,406	16,523	16,523
Type B	423	645	482	19,101	19,241	17,834
Non A, Non B	47	97	N	2,605	3,103	N
Unspecified	66	139	162	3,374	4,266	5,399
Legionellosis	24	24	N	516	553	N
Leprosy	2	5	5	187	286	189
Malaria	41	19	26	822	780	780
Measles: Total*	39	37	23	5,471	2,508	2,338
Indigenous	39	33	N	5,201	2,083	N
Imported	-	4	N	270	425	N
Meningococcal infections: Total	34	34	34	1,901	1,813	2,113
Civilian	34	34	34	1,899	1,807	2,109
Military	-	-	-	2	6	11
Mumps	75	32	45	3,618	2,305	2,532
Pertussis	109	103	84	2,405	2,383	1,823
Rubella (German measles)	7	5	7	423	560	793
Syphilis (Primary & Secondary): Civilian	991	706	655	19,871	20,079	22,891
Military	2	9	8	128	135	286
Toxic Shock syndrome	10	2	N	265	285	N
Tuberculosis	521	417	500	16,315	15,848	17,507
Tularemia	6	4	5	112	136	205
Typhoid fever	10	14	13	221	276	297
Typhus fever, tick-borne (RMSF)	27	16	16	628	583	872
Rabies, animal	106	127	127	4,130	4,074	4,819

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis (Fla. 1, Ark. 1)	27
Botulism: Foodborne (Alaska 3)	10	Plague	7
Infant	39	Poliomyelitis, Paralytic	1
Other	1	Psittacosis (Calif. 1)	76
Brucellosis (Mo. 1, S. Dak. 1, Ark. 1, Calif. 1)	61	Rabies, human	-
Cholera	2	Tetanus (Ark. 1, La. 1)	53
Congenital rubella syndrome (Calif. 1)	9	Trichinosis	30
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	35
Diphtheria	-		

*There were no cases of internationally imported measles reported for this week.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending September 27, 1986 and September 28, 1985 (39th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	9,563	389	855	82	651,029	662,548	442	423	47	66	24	187
NEW ENGLAND	403	9	21	3	17,055	17,157	10	41	3	5	2	6
Maine	17	1	-	-	667	852	-	4	-	-	-	-
N.H.	10	1	2	-	423	419	-	2	-	-	-	-
Vt.	4	-	3	2	195	253	2	-	-	-	-	-
Mass.	212	3	5	-	6,649	6,824	3	24	1	5	2	6
R.I.	26	1	-	-	1,309	1,380	2	3	1	-	-	-
Conn.	134	3	11	1	7,812	7,429	3	8	1	-	-	-
MID ATLANTIC	3,571	64	86	7	109,406	95,831	22	37	2	1	-	12
Upstate N.Y.	359	28	32	4	13,346	13,029	10	23	1	1	-	1
N.Y. City	2,418	-	18	-	62,056	47,406	-	-	-	-	-	10
N.J.	558	15	10	-	14,524	14,612	-	-	-	-	-	-
Pa.	236	21	26	3	19,480	20,784	12	14	1	-	-	1
E.N. CENTRAL	592	75	251	11	83,496	88,854	10	29	-	2	5	4
Ohio	131	34	87	3	21,210	23,059	5	16	-	-	5	-
Ind.	55	U	59	3	9,143	9,692	U	U	U	U	U	-
Ill.	274	2	42	4	22,508	22,119	-	-	-	-	-	3
Mich.	104	39	42	1	27,516	25,363	5	13	-	2	-	1
Wis.	28	-	21	-	3,119	8,621	-	-	-	-	-	-
W.N. CENTRAL	175	8	53	9	28,232	30,761	7	26	-	-	5	3
Minn.	60	-	21	-	4,048	4,598	-	7	-	-	-	1
Iowa	13	1	16	-	2,885	3,300	-	-	-	-	4	-
Mo.	64	6	1	-	14,201	14,878	3	12	-	-	-	-
N. Dak.	2	-	1	-	247	210	-	-	-	-	-	-
S. Dak.	1	1	11	-	594	590	-	1	-	-	-	-
Nebr.	8	-	-	1	2,142	2,524	1	1	-	-	1	-
Kans.	27	-	3	8	4,115	4,661	3	5	-	-	-	2
S. ATLANTIC	1,262	86	114	29	170,483	172,495	43	92	12	4	2	2
Del.	19	3	6	-	2,777	3,280	4	2	-	-	-	-
Md.	123	8	26	1	19,606	22,135	1	16	2	-	-	-
D.C.	168	1	-	1	12,647	11,630	-	1	-	-	-	-
Va.	119	19	33	1	14,039	14,376	2	22	-	1	-	1
W. Va.	7	11	33	-	1,723	1,959	1	2	-	-	-	-
N.C.	56	22	14	1	26,352	26,914	2	11	1	-	1	-
S.C.	33	1	-		14,840	16,525	-	9	1	-	-	-
Ga.	197	7	-	1	28,527	34,591	2	5	1	1	1	-
Fla.	540	16	2	24	49,972	41,085	31	24	7	2	-	1
E.S. CENTRAL	112	16	53	4	52,892	56,475	6	40	5	1	1	1
Ky.	25	5	27	1	5,666	6,486	-	4	-	-	-	-
Tenn.	53	6	5	1	20,315	21,475	4	19	1	1	-	-
Ala.	20	5	20	2	15,329	17,067	-	11	4	-	1	1
Miss.	14	-	1	-	11,582	11,447	2	6	-	-	-	-
W.S. CENTRAL	735	69	124	6	77,676	83,720	55	30	6	10	5	19
Ark.	24	-	-	2	7,277	8,159	9	5	-	-	1	1
La.	119	9	6	-	13,861	16,091	3	4	-	-	-	1
Okla.	27	14	19	-	8,887	9,253	11	8	4	-	1	-
Tex.	565	46	99	4	47,651	50,217	32	13	2	10	3	17
MOUNTAIN	253	5	27	1	19,270	20,531	46	17	3	5	4	11
Mont.	4	-	1	1	515	573	-	3	-	-	-	-
Idaho	3	-	-	-	648	659	24	1	-	1	-	-
Wyo.	4	1	2	-	414	478	-	-	-	-	-	-
Colo.	118	-	4	-	4,938	6,059	-	3	3	-	-	3
N. Mex.	20	1	3	-	1,898	2,386	8	4	-	-	1	-
Ariz.	63	2	9	-	6,268	6,005	11	5	-	4	2	5
Utah	13	1	6	-	829	942	3	1	-	-	-	1
Nev.	28	-	2	-	3,760	3,429	-	-	-	-	1	2
PACIFIC	2,460	55	128	12	92,519	96,724	243	111	16	38	-	129
Wash.	119	5	11	-	6,953	7,464	31	14	3	7	-	15
Oreg.	48	-	-	-	3,896	4,846	20	8	2	-	-	-
Calif.	2,243	41	110	12	78,646	80,811	185	83	11	30	-	89
Alaska	11	1	5	-	2,055	2,249	5	1	-	-	-	-
Hawaii	39	8	-	-	969	1,354	2	5	-	1	-	25
Guam	-	1	-	-	149	156	-	-	-	-	-	1
P.R.	77	1	5	1	1,820	2,467	5	12	-	-	-	7
V.I.	3	-	-	-	188	345	-	3	-	-	-	-
Pac. Trust Terr.	-	-	-	-	345	706	4	-	-	-	-	39
Amer. Samoa	-	-	-	-	35	-	2	-	-	-	-	2

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending September 27, 1986 and September 28, 1985 (39th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	822	39	5,201	-	270	2,508	1,901	75	3,618	109	2,405	2,383	7	423	560
NEW ENGLAND	53	-	82	-	15	126	130	-	53	1	124	111	-	9	12
Maine	2	-	12	-	1	1	24	-	-	-	2	8	-	-	-
N H	3	-	43	-	-	-	6	-	13	-	61	40	-	1	2
Vt	1	-	-	-	-	-	16	-	3	-	3	3	-	1	-
Mass	30	-	24	-	12	118	29	-	9	1	29	39	-	4	6
R I	7	-	2	-	-	-	18	-	9	-	5	14	-	2	-
Conn	10	-	1	-	2	7	37	-	19	-	24	7	-	1	4
MID ATLANTIC	109	9	1,672	-	29	211	307	3	168	2	158	150	1	32	219
Upstate N Y	40	-	77	-	23	85	103	1	56	1	104	78	1	24	17
N Y City	29	9	668	-	4	69	66	-	29	-	3	21	-	5	177
N J	20	-	905	-	-	28	30	2	40	1	15	7	-	3	11
Pa	20	-	22	-	2	29	108	-	43	-	36	44	-	-	14
E N CENTRAL	51	5	1,029	-	28	528	259	38	2,434	22	302	591	3	43	29
Ohio	15	-	-	-	10	55	104	8	108	21	138	76	-	1	-
Ind	2	U	18	U	11	57	24	U	34	U	24	188	U	-	1
Ill	15	4	683	-	4	297	68	19	1,818	1	32	56	3	32	12
Mich	16	1	59	-	-	60	56	11	267	-	28	41	-	8	15
Wis	3	-	269	-	3	59	7	-	207	-	80	230	-	2	1
W N CENTRAL	24	-	322	-	17	11	89	1	91	47	315	150	1	12	19
Minn	6	-	45	-	4	6	17	-	1	-	48	77	1	1	2
Iowa	1	-	133	-	1	-	11	1	27	-	18	6	-	1	1
Mo	10	-	25	-	6	2	31	-	17	-	18	28	-	1	7
N Dak	-	-	25	-	1	2	-	-	3	-	4	9	-	1	2
S Dak	-	-	-	-	-	-	5	-	1	-	14	2	-	-	-
Nebr	4	-	-	-	-	-	10	-	-	-	7	4	-	-	-
Kans	3	-	94	-	5	1	15	-	42	47	206	24	-	8	7
S ATLANTIC	101	3	558	-	56	314	344	9	185	6	656	446	-	12	51
Del	1	-	1	-	-	-	3	-	-	-	227	1	-	-	1
Md	13	-	26	-	9	105	44	-	17	-	139	260	-	-	6
D C	1	-	-	-	2	24	4	-	-	-	-	-	-	-	-
Va	25	-	36	-	24	28	59	1	35	-	34	14	-	-	2
W Va	4	-	2	-	-	33	3	1	41	-	23	4	-	-	9
N C	5	-	3	-	1	9	58	2	16	3	63	23	-	-	1
S C	6	-	274	-	-	3	32	-	12	2	18	2	-	-	3
Ga	10	-	79	-	14	8	51	-	28	-	122	85	-	-	-
Fla	36	3	137	-	6	104	90	5	36	1	30	57	-	12	29
E S CENTRAL	18	-	58	-	9	7	105	2	30	-	44	42	-	4	3
Ky	5	-	-	-	6	5	24	-	6	-	5	8	-	4	3
Tenn	1	-	55	-	1	1	37	2	19	-	16	19	-	-	-
Ala	8	-	1	-	1	-	32	-	4	-	23	11	-	-	-
Miss	4	-	2	-	1	1	12	-	1	-	-	4	-	-	-
W S CENTRAL	86	5	604	-	38	431	169	5	162	6	195	338	-	62	33
Ark	1	-	276	-	2	-	26	-	7	2	14	14	-	-	1
La	15	-	4	-	-	42	23	-	3	-	13	12	-	-	-
Okla	10	-	37	-	2	1	22	N	N	4	105	144	-	-	1
Tex	60	5	287	-	34	388	98	5	152	-	63	168	-	62	31
MOUNTAIN	31	1	301	-	26	538	94	7	222	13	235	175	-	23	6
Mont	-	-	-	-	8	137	8	-	5	-	14	9	-	2	-
Idaho	1	-	1	-	-	137	4	-	8	7	40	12	-	-	2
Wyo	-	-	-	-	-	4	2	-	-	-	4	-	-	1	-
Colo	8	-	2	-	5	13	15	-	12	-	62	65	-	1	-
N Mex	5	1	33	-	7	6	9	N	N	-	20	11	-	-	2
Ariz	11	-	252	-	6	241	21	3	178	6	56	33	-	2	1
Utah	3	-	12	-	-	-	9	3	13	-	35	45	-	14	-
Nev	3	-	1	-	-	-	26	1	6	-	4	-	-	3	1
PACIFIC	349	16	575	-	52	342	404	10	273	12	376	380	2	226	188
Wash	23	1	159	-	25	76	56	-	8	7	114	67	-	15	14
Oreg	15	3	7	-	4	5	31	N	N	2	12	40	-	1	1
Calif	310	12	382	-	22	237	300	8	239	2	237	227	2	205	124
Alaska	-	-	-	-	-	-	12	-	6	-	2	29	-	-	1
Hawaii	1	-	27	-	1	24	5	2	20	1	11	17	-	5	48
Guam	1	-	4	-	1	11	-	-	4	-	-	-	-	3	2
P R	4	3	36	-	-	63	3	-	31	-	13	10	-	60	25
V I	-	-	-	-	-	10	-	1	14	-	-	-	-	-	-
Pac Trust Terr	-	-	-	-	-	-	1	-	10	-	-	-	-	2	-
Amer Samoa	-	-	2	-	-	-	-	-	4	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations

N Not notifiable U Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending September 27, 1986 and September 28, 1985 (39th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	19,871	20,079	10	16,315	15,848	112	221	628	4,130
NEW ENGLAND	353	447	1	522	527	1	13	12	7
Maine	15	13	1	33	39	-	-	-	-
N H	10	35	-	19	18	-	-	2	1
Vt	8	6	-	14	5	-	-	-	1
Mass	194	222	-	281	315	1	11	4	-
R I	18	14	-	40	38	-	-	3	3
Conn	108	157	-	135	112	-	2	3	2
MID ATLANTIC	2,797	2,685	-	3,281	2,902	1	19	31	502
Upstate N Y	142	200	-	468	517	-	3	19	65
N Y City	1,580	1,641	-	1,703	1,403	-	8	5	-
N J	496	527	-	572	393	1	7	2	16
Pa	579	317	-	538	589	-	1	5	421
E N CENTRAL	702	791	1	1,951	1,942	-	17	53	108
Ohio	97	114	1	333	345	-	4	48	9
Ind	86	71	U	204	241	-	2	-	16
Ill	351	381	-	837	840	-	2	2	33
Mich	127	175	-	484	404	-	7	3	22
Wis	41	50	-	93	112	-	2	-	28
W N CENTRAL	161	170	-	494	443	32	8	44	644
Minn	28	35	-	110	93	-	1	1	92
Iowa	6	17	-	40	46	1	-	1	149
Mo	87	87	-	249	216	24	6	23	66
N Dak	3	2	-	6	8	-	-	1	135
S Dak	5	5	-	23	22	2	-	6	126
Nebr	11	7	-	11	13	1	-	4	25
Kans	21	17	-	55	45	4	1	8	51
S ATLANTIC	6,255	5,906	-	3,187	3,209	9	34	289	1,004
Del	48	29	-	33	33	-	1	1	1
Md	331	351	-	234	278	2	11	28	489
D C	215	261	-	111	123	1	4	-	27
Va	276	224	-	264	287	2	7	44	148
W Va	18	18	-	93	83	-	3	8	35
N C	379	521	-	443	402	1	3	105	9
S C	504	621	-	415	398	-	-	65	53
Ga	1,130	1,033	-	504	541	3	-	36	161
Fla	3,354	2,848	-	1,090	1,066	-	5	2	81
E S CENTRAL	1,278	1,563	1	1,466	1,396	8	3	84	277
Ky	58	54	-	336	335	3	-	20	72
Tenn	471	482	-	433	400	4	1	36	108
Ala	419	470	1	457	421	1	1	16	95
Miss	330	557	-	240	240	-	1	12	2
W S CENTRAL	3,920	4,586	-	2,052	2,016	52	17	106	585
Ark	187	244	-	280	213	37	-	8	132
La	674	813	-	346	303	1	1	-	18
Okla	103	145	-	189	194	9	1	83	53
Tex	2,956	3,384	-	1,237	1,306	5	15	15	382
MOUNTAIN	448	551	1	388	414	7	14	8	568
Mont	6	6	-	24	46	1	1	4	178
Idaho	10	5	-	17	20	-	-	-	8
Wyo	1	7	-	-	5	-	-	1	240
Colo	105	137	-	34	50	3	1	3	29
N Mex	55	106	-	77	73	1	1	-	6
Ariz	187	248	-	183	182	-	7	-	94
Utah	14	5	1	28	12	1	3	-	5
Nev	70	37	-	25	26	1	1	-	8
PACIFIC	3,957	3,380	6	2,974	2,999	2	96	1	435
Wash	110	87	5	148	182	-	3	-	5
Oreg	85	75	-	102	98	-	-	-	-
Calif	3,736	3,164	1	2,551	2,505	1	88	1	422
Alaska	1	2	-	37	71	1	1	-	8
Hawaii	25	52	-	136	143	-	4	-	-
Guam	1	2	-	34	35	-	1	-	-
P R	680	616	-	253	288	-	5	-	35
V I	1	3	-	1	1	-	-	-	-
Pac Trust Terr	200	100	-	53	61	-	45	-	-
Amer Samoa	-	-	-	5	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending September 27, 1986 (39th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	640	457	112	39	15	17	60
Boston, Mass	176	110	39	12	6	9	23
Bridgeport, Conn	53	34	15	4	-	-	-
Cambridge, Mass	30	24	6	-	-	-	3
Fall River, Mass	35	26	4	1	4	-	1
Hartford, Conn	55	39	8	2	1	5	3
Lowell, Mass	24	18	4	2	-	-	3
Lynn, Mass	18	17	1	-	-	-	-
New Bedford, Mass	33	25	6	2	-	-	1
New Haven, Conn	57	41	10	5	-	1	6
Providence, R I	30	23	4	3	-	-	6
Somerville, Mass	5	2	3	-	-	-	-
Springfield, Mass	45	39	3	-	1	2	2
Waterbury, Conn	26	20	4	2	-	-	-
Worcester, Mass	53	39	5	6	3	-	2
MID ATLANTIC	2,763	1,802	555	274	69	63	114
Albany, N Y	56	41	8	4	1	2	-
Allentown, Pa	11	11	-	-	-	-	-
Buffalo, N Y	112	73	25	8	4	2	8
Camden, N J	38	25	9	2	-	2	3
Elizabeth, N J	20	12	4	4	-	-	-
Erie, Pa †	37	25	10	2	-	-	2
Jersey City, N J	41	22	11	8	-	-	2
N Y City, N Y	1,495	941	299	181	39	35	45
Newark, N J	72	39	17	9	4	3	5
Paterson, N J	25	13	4	4	3	1	1
Philadelphia, Pa	406	261	81	38	12	14	20
Pittsburgh, Pa †	75	57	14	4	-	-	5
Reading, Pa	19	15	3	-	-	1	4
Rochester, N Y	111	80	25	3	2	1	9
Schenectady, N Y	33	27	5	-	-	1	2
Scranton, Pa †	27	22	3	2	-	-	-
Syracuse, N Y	76	58	15	1	2	-	4
Trenton, N J	37	26	7	3	1	-	1
Utica, N Y	33	25	6	1	-	1	-
Yonkers, N Y	39	29	9	-	1	-	3
E N CENTRAL	2,325	1,494	508	178	62	83	77
Akron, Ohio	52	35	8	5	2	2	-
Canton, Ohio	27	19	5	1	2	-	1
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	156	100	39	11	2	4	14
Cleveland, Ohio	162	93	38	16	9	6	2
Columbus, Ohio	176	105	49	12	7	3	5
Dayton, Ohio	127	76	35	9	1	6	5
Detroit, Mich	246	135	55	34	8	14	7
Evansville, Ind	50	39	9	1	-	1	-
Fort Wayne, Ind	53	38	7	2	5	1	1
Gary, Ind	31	19	9	3	-	-	-
Grand Rapids, Mich	46	32	8	1	1	4	4
Indianapolis, Ind	171	107	37	12	9	6	4
Madison, Wis	36	22	6	6	-	2	3
Milwaukee, Wis	122	79	28	4	5	6	3
Peoria, Ill	35	23	9	1	-	2	1
Rockford, Ill	50	36	10	3	-	1	4
South Bend, Ind	48	36	8	4	-	-	3
Toledo, Ohio	101	81	11	6	1	2	3
Youngstown, Ohio	72	57	12	2	-	1	1
W N CENTRAL	719	481	141	41	23	33	36
Des Moines, Iowa	78	54	17	4	1	2	5
Duluth, Minn	25	16	3	1	2	3	-
Kansas City, Kans	35	20	9	5	-	1	-
Kansas City, Mo	121	76	30	5	3	7	8
Lincoln, Nebr	30	25	5	-	-	-	3
Minneapolis, Minn	89	60	18	5	3	3	1
Omaha, Nebr	72	48	14	4	5	1	3
St Louis, Mo	139	93	23	9	6	8	10
St Paul, Minn	71	51	10	6	2	2	1
Wichita, Kans	59	38	12	2	1	6	5
S ATLANTIC	1,073	648	236	115	42	32	44
Atlanta, Ga	138	81	30	16	4	7	4
Baltimore, Md	109	64	26	9	6	4	5
Charlotte, N C	72	37	18	9	4	4	7
Jacksonville, Fla	94	53	22	10	6	3	2
Miami, Fla	106	73	16	16	-	1	1
Norfolk, Va	51	31	11	4	3	2	2
Richmond, Va	78	46	18	6	6	2	3
Savannah, Ga	41	21	9	4	4	3	2
St Petersburg, Fla	90	72	12	5	-	1	5
Tampa, Fla	55	35	10	7	1	2	6
Washington, D C	206	116	55	26	6	3	6
Wilmington, Del	33	19	9	3	2	-	1
E S CENTRAL	661	427	150	44	26	14	15
Birmingham, Ala	76	44	18	6	4	4	1
Chattanooga, Tenn	65	44	17	3	1	-	2
Knoxville, Tenn	88	61	21	4	1	1	5
Louisville, Ky	106	75	14	7	2	8	1
Memphis, Tenn	159	97	39	13	10	-	3
Mobile, Ala	18	15	3	-	-	-	-
Montgomery, Ala	38	21	10	5	2	-	-
Nashville, Tenn	111	70	28	6	6	1	3
W S CENTRAL	1,227	706	280	127	58	56	47
Austin, Tex	66	41	13	4	5	3	6
Baton Rouge, La	31	17	7	5	1	1	2
Corpus Christi, Tex	66	35	17	6	4	4	1
Dallas, Tex	178	94	39	20	11	14	9
El Paso, Tex	41	29	7	2	2	1	3
Fort Worth, Tex	89	51	17	12	5	4	2
Houston, Tex	302	160	78	41	14	9	8
Little Rock, Ark	66	46	12	4	3	1	5
New Orleans, La	102	56	29	8	-	9	-
San Antonio, Tex	166	99	33	18	10	6	6
Shreveport, La	24	16	7	1	-	-	1
Tulsa, Okla	96	62	21	6	3	4	4
MOUNTAIN	653	389	132	72	40	20	21
Albuquerque, N Mex	94	53	16	10	14	1	2
Colo Springs, Colo	47	23	9	7	6	2	4
Denver, Colo	127	86	24	13	3	1	2
Las Vegas, Nev	92	52	24	11	3	2	2
Ogden, Utah	13	6	3	4	-	-	-
Phoenix, Ariz	109	63	17	16	5	8	3
Pueblo, Colo	16	14	-	1	1	-	1
Salt Lake City, Utah	47	23	11	5	3	5	2
Tucson, Ariz	108	69	28	5	5	1	5
PACIFIC	1,946	1,201	415	210	66	50	124
Berkeley, Calif	18	11	2	2	-	3	2
Fresno, Calif	53	42	8	-	1	2	6
Glendale, Calif	22	16	3	3	-	-	1
Honolulu, Hawaii	77	48	14	8	4	3	10
Long Beach, Calif	98	61	23	7	4	3	9
Los Angeles, Calif	614	356	153	72	22	8	18
Oakland, Calif	80	44	13	15	6	2	5
Pasadena, Calif	38	23	7	3	3	2	2
Portland, Oreg	102	70	15	7	3	7	7
Sacramento, Calif	128	82	28	11	6	1	16
San Diego, Calif	129	89	17	17	-	5	21
San Francisco, Calif	169	88	42	34	2	3	5
San Jose, Calif	155	102	31	13	5	4	11
Seattle, Wash	170	106	42	11	8	3	5
Spokane, Wash	65	41	13	6	1	4	3
Tacoma, Wash	28	22	4	1	1	-	3
TOTAL	12,007††	7,605	2,529	1,100	401	368	528

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* Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

** Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages

§ Data not available. Figures are estimates based on average of past 4 weeks

Work-Related Diseases and Injuries — Continued

Worksite studies by NIOSH have revealed that job stresses may contribute to acute disturbances among groups of workers, including those termed "mass psychogenic illness" (*16*). The sudden appearance of symptoms, usually in response to some "trigger factor" such as a strange odor, may result in spread of the apparent "illness" throughout the plant, with symptoms such as headaches, dizziness, and nausea. Investigations often fail to detect specific physical or chemical causative agents. However, factors such as heavy work load, strained labor/management relations, and physical discomfort at work may be present and related to the reporting of symptoms.

Emerging trends in technology, the economy, and demographic characteristics of the work force may lead to increased risk for psychological disorders. For example, a 26% increase is projected for employment in the health services, an area that may be associated with elevated risk (*9, 17*). Computers and robots are expected to affect seven million factory jobs and 39 million office jobs (*18*). According to some forecasters (*18*), possible consequences may include job displacement, reduced skill requirements, and lower-paying jobs. It has been projected that in the next decade, nine of every 10 new jobs will be in the service sector (*19*). Routine service jobs may not provide the compensation and benefits associated with the more traditional industrial and manufacturing jobs (*18*). Six of 10 new jobs in the next decade will be filled by women (*19*), and dual job/home role demands and constrained occupational opportunities for women may result in an adverse impact on their mental health.

Reported by Div of Biomedical and Behavioral Science, National Institute for Occupational Safety and Health, CDC.

Editorial Note: A prevention strategy for psychological disorders should take into account both the causal mechanisms and the factors that perpetuate these disorders. Work-related psychological disturbances are known to be influenced by both the physical and psychosocial characteristics of given job situations. Moreover, these factors operate in concert with factors unrelated to the job—such as life events; familial demands and support; and the traits, capacities, and needs of the workers themselves (e.g., personality, age, sex, experience/learning). The interaction of these variables is complex, and the relative influence of each is not thoroughly understood. Nevertheless, approaches to prevent work-related psychological disorders should still be taken using the information currently available.

Stress-reduction techniques (e.g., meditation, biofeedback, muscle relaxation, cognitive restructuring, and anxiety management) have been taught to both blue- and white-collar workers in worksite training sessions. Follow-up studies have shown decreases in psychophysiologic activity (e.g., muscle tension and blood pressure levels) and reductions in subjective reports of anxiety, sleep disturbances, and other health complaints with each technique (*20*). However, improvement in all these parameters persisted less than 3 months after training ended.

Stress management treats only the symptoms of the problem—not the cause. Therefore, efforts to control risk factors at the worksite are also important. Some previously described suggestions for controlling worksite risk factors for psychological disorders are listed below (*21*). These suggestions appear to have merit for reducing work-related psychological disorders, but further evaluation and study are needed for a complete understanding of their impact.

- **Work schedule**. Design work schedules to avoid conflict with demands and responsibilities unrelated to the job. Schedules for rotating shifts should be stable and predictable, with rotation in a forward (day-to-night) direction.
- **Participation/control**. Allow workers to provide input for decisions or actions affecting their jobs.

Work-Related Diseases and Injuries — Continued

- **Workload**. Ensure assignments are compatible with the capabilities and resources of the worker, and allow for recovery from especially demanding physical or mental tasks.
- **Content**. Design tasks to provide meaning, stimulation, a sense of completeness, and an opportunity to use skills.
- **Roles**. Define work roles and responsibilities clearly.
- **Social environment**. Provide opportunities for social interaction, including emotional support and help directly related to one's job.
- **Future**. Avoid ambiguity in matters of job security and career development.

In addition to evaluation of these suggested actions, efforts are needed to advance the understanding of work-related psychological disorders and of methods appropriate for their control, including:

1. Improving the systems for surveillance of psychological disorders in the workforce as related to working conditions.
2. Improving research techniques for investigating stressful working conditions and their health consequences.
3. Improving training of occupational health professionals and workers in recognizing stressful workplace conditions and signs of worker stress and in effecting remedial measures.
4. Furthering the development of mental health components in occupational health and safety programs.

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Misclassification of Maternal Deaths — Washington State

To determine more accurately the number of maternal deaths in the State of Washington in the period 1977-1984, death certificates for all reproductive-age women who died in those years were linked to birth and fetal-death files. The purpose of this linkage was to identify women who had died within a year after having a live birth or fetal death. For this 8-year period, the record linkage identified 23 maternal deaths (Table 3) in addition to the 34 maternal deaths reported through the state's vital statistics system. This total of 57 represents a 68% increase in ascertainment of maternal deaths.

To establish linkage, the names of the 2,073 women, ages 15-44 years, who had died in Washington State in 1977-1984 from causes other than cancer and intentional or unintentional injuries, were compared with the names of women on birth and fetal-death files. When these names matched, birth and death certificates were compared to verify each match. The

TABLE 3. Maternal death by cause and source of information — Washington, 1977-1984

Cause of death	State vital statistics (n=34)	Record linkage only (n=23)
Direct causes		
Hypertension	13	6
Pulmonary embolism	5	1
Uterine hemorrhage	4	0
Anesthesia complication	3	1
Ectopic pregnancy	3	0
Sepsis	0	2
Air embolism (Self-induced abortion)	0	1
Other	2	2
Indirect causes		
Cerebrovascular accident (Nonhypertensive)	1	3
Congenital heart disease	2	2
Respiratory failure (Pre-existing pulmonary disease)	0	2
Hepatic failure	1	1
Pneumonia	0	1
Hypertensive heart disease (Pre-existing hypertension)	0	1

Maternal Deaths – Continued

woman's cause of death, the interval between delivery and death, and other medical information about the case were reviewed to determine whether the death should be classified as maternal (Table 3). Maternal mortality was defined as either a direct or indirect maternal death occurring within 42 days of delivery, based on the codes defined by the *International Classification of Diseases* (*1,2*).

Of the 34 maternal deaths reported through the state's vital statistics system, 20 were linked to birth or fetal-death certificates; 14 women had a maternal condition listed as the cause of death, but were not linked to birth or fetal-death certificates. In addition, death certificates for 39 other women were matched with birth or fetal-death certificates, but these deaths had not been classified by the state's vital statistics system as maternal deaths. For 16 of these 39 deaths, a causal association with pregnancy was unclear or unlikely; the other 23 were classified as maternal. Seven of the 23 maternal deaths that were originally misclassified as non-maternal were concurrent with the reported birth or fetal death.

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Editorial Note: There was a decrease in misclassified deaths in Washington State between 1977 and 1984. In the period 1977-1981, 19 (53%) of 36 maternal deaths were originally misclassified as non-maternal (*3*). In contrast, in 1982-1984, only four (19%) of 21 maternal deaths were originally misclassified. The decrease in misclassified maternal deaths in 1982-1984 probably reflects an increased number of queries by the nosologists during this period. A review of maternal death certificates in Washington showed that 60% of the maternal deaths were queried from 1982 through 1984, in contrast to 15% from 1977 through 1981.

Based on the state's vital statistics, the maternal mortality rate in Washington was 6.5 maternal deaths/100,000 live births for this 8-year period. However, the rate calculated from both vital statistics and record linkage was 10.9/100,000 live births. Underestimation of maternal mortality is a problem that has long been recognized (*4,5*). The Washington State study—as well as recent studies in Georgia, New Jersey, and Puerto Rico—suggests that the problem persists (*6,7,8*). The percentage of maternal deaths not obtainable from routine coding of death certificates ranged from 27% in Georgia to 71% in Puerto Rico. As was shown in Georgia (*6*), this study demonstrates that more complete counts of maternal deaths can be obtained from routine linkage of birth and fetal-death certificates with death certificates of reproductive-age women.

Several categories of maternal deaths may not be found through record linkage if they are misclassified on death certificates. The first category includes maternal deaths that may not generate a record of pregnancy outcome. This includes maternal deaths from ectopic pregnancy, gestational trophoblastic disease, induced abortion, and first-trimester spontaneous abortion, as well as maternal deaths that occur during pregnancy. The second category includes maternal deaths that are misclassified but are not identified by record linkage because of incorrect identifiers (e.g., name, address, and birth date) or because of unreported births or fetal deaths. Some of these maternal deaths can be identified by supplementing information from vital statistics with annual maternity service reports from hospitals and with individual reports from physicians, hospitals, and medical examiners (*7*). Furthermore, as was shown in Puerto Rico (*8*), a review of death certificates and selected medical records of reproductive-age women who died could probably identify even more of these maternal deaths.

In 1983, the reported maternal mortality rate in the United States was 8.0/100,000 live births (*9*). The U.S. Public Health Service *1990 Objective* for maternal mortality is a maternal

Maternal Deaths – Continued

death rate not to exceed 5/100,000 live births for any county or for any ethnic group. Accurate and complete data on maternal deaths may facilitate the development of strategies to reduce the maternal mortality rate. In the near future, the Center for Health Promotion and Education, CDC, plans to establish a National Maternal Mortality Surveillance System to assist in achieving this objective.

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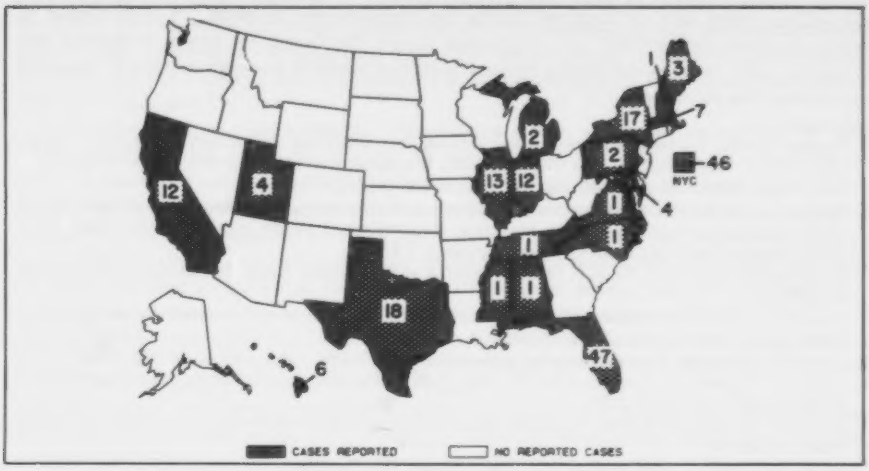
NOTE: As of October 1, 1986, the text of each week's issue of the *Morbidity and Mortality Weekly Report* (*MMWR*), which has been available through CDC's Rapid Information Transmittal System (RITS), will no longer be available on that system. Persons who wish to obtain the *MMWR* text electronically must do so through Medical Information Network (MINET). For additional information about MINET, contact Ms. Joan Kennedy, Information Resources Management Office, Centers for Disease Control, Atlanta, GA 30333; phone: (404) 329-3396, FTS 236-3396.

FIGURE I. Reported measles cases — United States, weeks 35-38, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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CENTERS FOR DISEASE CONTROL

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MMWR

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Current Trends

Congenital Syphilis — United States, 1983-1985

After 8 years of steady decline, the number of reported cases of congenital syphilis (CS) among persons under 1 year of age rose in the period 1978-1985 from 108 to 268 (Figure 1). Incidence of CS generally reflects incidence of primary and secondary (P & S) syphilis among women of childbearing age, as well as the diagnosis and treatment of syphilis in prenatal care programs. In 1985, rates of CS were highest in areas with high incidence of P & S syphilis (*1*) (Figure 2). Three states (Texas, Florida, California) and one major metropolitan area (New York City) accounted for 80% of all CS cases reported in 1985. Between 1978 and 1983, P & S syphilis rates for women also increased to a peak of 7.6 cases/100,000 women in 1983 (Figure 1).

In 1983, CDC surveillance of CS was modified to enable the reporting of detailed clinical data on affected infants and their mothers to the Division of Sexually Transmitted Diseases, CDC. On the basis of these data, reporting areas classified CS cases among patients less than

FIGURE 1. Case rates of primary and secondary (P&S) syphilis among females and congenital syphilis among infants* — United States, 1970-1985

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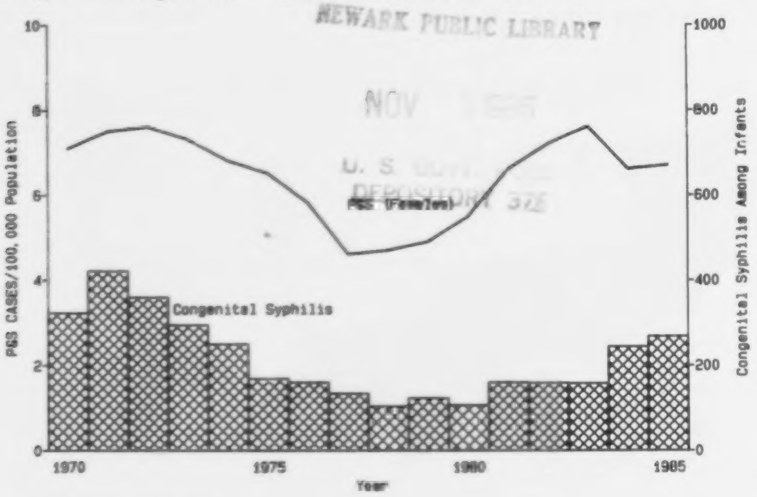


*Under 1 year of age

HE 20.7009:

Congenital Syphilis — Continued

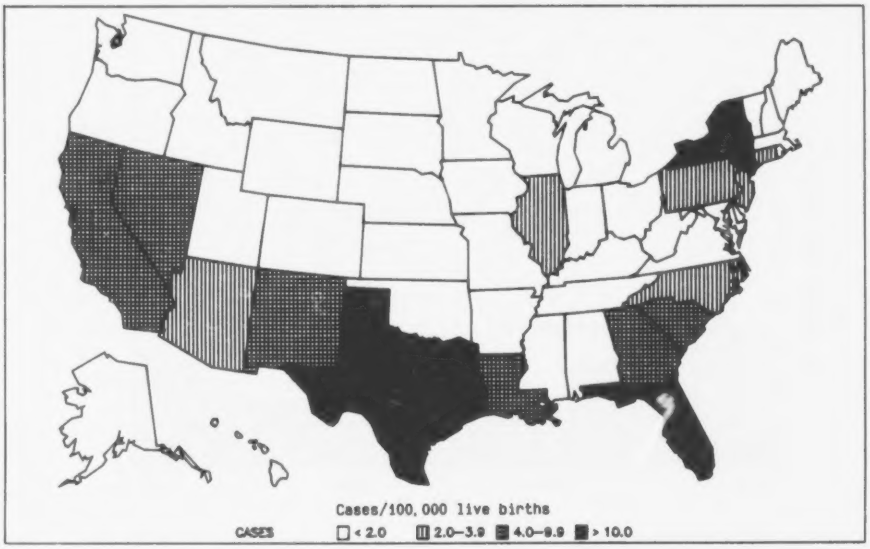
1 year of age by a modification of previously published criteria (*2*) as "definite," "probable," "possible," and "unlikely." This information for the period 1983-1985 was used to explore what factors could be associated with the trend toward rising incidence.

Clinical data and certainty of diagnosis are available for 460 patients (111 cases reported in 1983, 209 in 1984, and 140 in 1985). Fifty (11%) patients with clinical information had dark-field-proven "definite" CS, and 191 (42%) were classified as having "probable" CS on the basis of rising serologic titers prior to treatment, persistently positive treponemal tests at 6 months of age, or major clinical manifestations. Of these patients, 10 were seronegative at birth, but each was retested when the mother was seen for secondary syphilis during the child's infancy. One hundred ninety-six (43%) were classified as having "possible" CS on the basis of minor clinical criteria and positive serologic testing. Six of the infants tested were considered to have a low risk of infection ("unlikely" CS) because the mothers had adequate treatment during their pregnancy and the infants were asymptomatic at birth. For 17 (4%), insufficient data existed to establish the certainty of diagnosis.

Of the 460 case-infants, 238 (52%) were black; 167 (36%), Hispanic; 40 (9%), white; 15 (3%), other or unknown race. The mean age of case-infants at the time of reporting was 2.1 months; 276 (60%) were reported as having CS in the first 30 days after birth.

Stillbirth in the presence of maternal early syphilis was the initial symptom prompting evaluation for 21 (19%) of the infants reported in 1983, for 74 (35%) of the infants reported in 1984, and 40 (29%) of the infants reported in 1985. In 30% of reported cases in all three of these years, infants were born with symptoms suggestive of CS. Only 12% of infants were asymptomatic at birth and diagnosed solely because of a positive maternal delivery serologic test for syphilis (STS).

FIGURE 2. Congenital syphilis rates*, by state — United States, 1985



*Excludes known stillbirths

Congenital Syphilis — Continued

Osteochondritis and periostitis were the most common major signs of CS in this series. Jaundice, hepatosplenomegaly, and cutaneous lesions were the most frequently cited minor (non-specific) signs of CS. Clinically significant central nervous system involvement was identified in 34 cases, but only five infants had cerebrospinal fluid serologic evidence of neurosyphilis.

Demographic characteristics of mothers of infants with CS did not change appreciably over the 3 years studied. The mean age for a mother at the time of birth of the infected infant was 24 years (range, 14-43 years); 133 (30%) mothers were under 20 years of age.

In the general population, 95% of pregnant women have at least one prenatal medical visit (*3*); in contrast, only 52% of mothers of infants with CS reported having at least one prenatal visit (Table 1). Among those mothers receiving prenatal care, the mean gestational age at which they were first seen for prenatal care was 22 weeks—i.e., late in the second trimester.

Preventable failure to diagnose or treat infected mothers who did receive prenatal care contributed to the occurrence of CS. Of women who received prenatal care, CS cases were attributed to failure to screen for syphilis (18 women, 8%); failure to treat pregnant women with reactive STS (32 women, 14%); and failure to screen women in the third trimester of pregnancy who lived in an area of high CS prevalence (58 women, 25%) (Table 1).

Of the 229 women who received prenatal care, 81 (35%) were treated for syphilis during their pregnancies but later had infants with CS (Table 1). Sixty of these treatment failures occurred among women who had been treated with benzathine penicillin regimens appropriate for their stage of infection; 45 of these were in the third trimester and another 11 in the second trimester. In three of the second-trimester treatment failures, a reinfection was documented in the third trimester. Thirty-five percent of the treatment failures occurred among mothers who were treated during the P & S stages of syphilis and later had infected infants. Of the untreated group, only 24% were in the P & S stages of syphilis at the time of diagnosis. Erythromycin oral regimens used for pregnant patients who reported a penicillin allergy accounted for 11 of the 81 treatment failures.

TABLE 1. Clinical factors associated with congenital syphilis (CS) among 437 infants* — United States, 1983-1985

Factor	Number of infants	(%)
Did receive prenatal care	**229**	**(52)**
No STS	18	(8)
Positive STS not treated	32	(14)
Negative 1st STS; no 3rd trimester STS	58	(25)
Other causes for failure to diagnose	40	(18)
Prenatal antibiotic treatment failure†	81	(35)
Did not receive prenatal care	**208**	**(48)**

*Excludes 23 infants unlikely to have CS or with insufficient data to determine certainty of diagnosis.

†Antibiotic regimen	Number of infants	(%)
3rd trimester benzathine penicillin	45	(55)
2nd trimester benzathine penicillin	11	(14)
Benzathine penicillin, trimester unknown	4	(5)
Erythromycin	11	(14)
Other antibiotic treatments	10	(12)

Source: CDC Congenital Syphilis Follow-Up Form 73.126, 1983-1985.

Congenital Syphilis – Continued

Reported by Epidemiology Research Br, Evaluation and Statistical Svcs Br, Div of Sexually Transmitted Diseases, Center for Prevention Svcs, CDC.

Editorial note: Steady decreases in incidence of CS occurred following the introduction of benzathine penicillin therapy in the 1950s and prenatal serologic screening for syphilis (*4*). However, substantial increases in reported cases have been observed in recent years.

Part of the increase observed in 1984 may be attributed to increased sensitivity of the surveillance system—particularly for stillbirths. However, there is no trend to suggest that the increase observed in 1985 is attributable to any change in reporting activity. The recent increases in CS incidence suggest that increased vertical transmission may be related to underutilization and inadequacy of prenatal care. With high rates of P & S syphilis still existing in some areas in the United States, it is particularly important to provide early, high-quality prenatal care to populations in these areas, with serologic testing in both the first and third trimester (*5*) and adequate follow-up to detect reinfection and treatment failure.

Clinical data on confirmed CS cases in the series reported on here suggest that at least 60% of cases could have been prevented if the above recommendations had been implemented. The resources required for accessible, high-quality early prenatal care to adequately screen pregnant women for syphilis are considerable. However, even in female populations with very low prevalence of early syphilis, prevention in the prenatal care setting is cost-effective (*6*).

Complete reporting of those infants who may be infected is essential to the surveillance and ultimately the prevention of CS. The data indicate that CS cases are being reported very shortly after birth, underscoring the timeliness of the surveillance system. When mothers develop symptoms of syphilis within 12 months after their babies are born, the infants should be evaluated even if they were seronegative at birth (*2*).

Failure of recommended prenatal antibiotic treatment regimens resulted in 19% of the confirmed CS cases in this series. Of these, third-trimester treatments and erythromycin treatment due to maternal penicillin allergies accounted for 69% of failures. Erythromycin treatment during pregnancy has been associated with numerous reports of treatment failure (*7,8*). For pregnant women who are allergic to penicillin, oral desensitization after documentation of penicillin allergy represents a promising alternative (*9*). Further evaluation of treatment failures during P & S stages of syphilis, as well as during the third trimester, is under way to determine the adequacy of current recommendations and to provide guidelines for theoretical alternative antibiotic regimens.

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Epidemiologic Notes and Reports

Group-A, -B Hemolytic *Streptococcus* Skin Infections in a Meat-Packing Plant — Oregon

In the period October 17, 1985-January 9, 1986, 44 episodes of pyoderma occurred among 32 workers in an Oregon meat-packing plant. Most of the 44 reports involved impetigo-like lesions on the hand, wrist, and forearm, but six episodes of cellulitis and two of lymphangitis were also reported. The same epidemic strain of Group-A, -B hemolytic *Streptococcus* (GAS) isolated from skin lesions was also isolated from meat in the plant.

In November 1985, emergency-room personnel in Pendleton, Oregon, reported to the Umatilla County Health Department a cluster of skin infections affecting three employees in a meat-packing plant, all from the same small, family-owned facility. After the Oregon State Health Division was asked to investigate, all 69 persons employed in the plant were interviewed for a history of and examined for the presence of pustular, draining, or inflamed skin lesions.

Seventy lesions were cultured, representing the initial 44 episodes of infection and 14 later sporadic cases. GAS, only, was isolated from 26%; both GAS and *Staphylococcus aureus* from 54%; and *Staph. aureus*, only, from 17%. Whereas multiple phage types of *Staph. aureus* were isolated from patients and meat, a single strain of GAS, MNT T14 SOR$^+$, was identified in 24 group A streptococcal isolates serotyped.

Between October 17, 1985, and January 9, 1986, all but four of the 32 ill meat packers worked at least part-time on the kill floor or on the boning line or both. The attack rate for boners/killers was 74%, compared with 13% for workers who were never involved in killing or boning (relative risk [RR]=5.7, 95% confidence limits [CL]=2.9-11.3).

The epidemic investigation suggested that meat was a vehicle of transmission of GAS between workers. Cultures of two pork loins revealed the same epidemic strain (MNT T14 SOR$^+$) as did isolates from patients. An increased risk for acquiring infection could not be shown for other exposures. Workers who became infected did not share knives or gloves more often than did uninfected workers. Meat packers usually own and maintain their own knives.

Recommendations to the meat-packing plant included an increased emphasis on worker safety; an increased emphasis on worker hygiene, e.g., covering skin lacerations; removal of workers with untreated skin infections from the meat-processing line; and improved surveillance of skin injuries and infections, including modifying sick-leave benefits to encourage reporting.

Reported by K Flanagan, St. Anthony's Hospital, Pendleton, S Kline, Umatilla County Health Dept, K Quackenbush, Public Health Laboratory, L Foster, State Epidemiologist, Oregon State Health Div; Div of Field Svcs, Epidemiology Program Office, Respiratory Diseases Br, Div of Bacterial Diseases, Center for Infectious Diseases, CDC.

Editorial Note: This is the second reported outbreak of GAS skin infections among U.S. meat packers. During a similar outbreak in a Vermont meat-packing plant involving 18 of 59 employees, a worker with a chronic impetiginous lesion may have introduced GAS into the plant, and meat was postulated as one mode of transmission (*1*). Epidemic and sporadic cases of GAS skin infections among meat workers have been recognized in Great Britain since the mid-1970s (*2-4*). In the Oregon outbreak, it is also likely that meat was the vehicle of transmission after initial contamination by an infected human. Knife use is probably the significant risk shared by killers and boners vs. other meat workers. Bone has also been recognized

Streptococcus *Skin Infections — Continued*

as a source of skin injury among meat workers (*5*). GAS might spread from a meat-packing plant outside to non-plant workers, although there is no evidence of such transmission in the Oregon outbreak. In Great Britain, retail butchers and restaurant workers have been infected with epidemic GAS strains during outbreaks in meat-packing plants, presumably by handling contaminated meat (*6, 7*). Improved surveillance of skin infections in the meat-packing industry may document more accurately the occurrence of such outbreaks in the United States.

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TABLE I. Summary—cases specified notifiable diseases, United States

Disease	40th Week Ending			Cumulative, 40th Week Ending		
	Oct. 4, 1986	Oct. 5, 1985	Median 1981-1985	Oct. 4, 1986	Oct. 5, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	345	218	N	9,910	5,998	N
Aseptic meningitis	383	447	354	7,472	7,440	7,230
Encephalitis: Primary (arthropod-borne & unspec.)	32	56	48	889	952	1,146
Post-infectious	-	3	3	82	104	76
Gonorrhea: Civilian	17,043	18,861	19,021	670,113	681,409	691,625
Military	358	328	486	12,693	16,332	18,749
Hepatitis: Type A	492	515	496	16,871	17,038	17,038
Type B	494	544	482	19,596	19,785	18,296
Non A, Non B	57	76	N	2,667	3,179	N
Unspecified	75	127	157	3,448	4,393	5,556
Legionellosis	23	21	N	539	574	N
Leprosy	5	5	4	194	291	193
Malaria	25	19	19	847	801	801
Measles: Total*	87	14	20	5,559	2,522	2,349
Indigenous	79	13	N	5,281	2,096	N
Imported	8	1	N	278	426	N
Meningococcal infections: Total	26	40	40	1,928	1,853	2,146
Civilian	26	40	40	1,926	1,847	2,142
Military	-	-	-	2	6	11
Mumps	262	30	41	3,889	2,335	2,573
Pertussis	175	134	50	2,601	2,517	1,866
Rubella (German measles)	6	6	11	429	566	804
Syphilis (Primary & Secondary): Civilian	447	534	617	20,109	20,613	23,508
Military	1	3	3	128	138	289
Toxic Shock syndrome	5	9	N	270	294	N
Tuberculosis	501	415	458	16,931	16,263	17,965
Tularemia	2	8	7	114	144	218
Typhoid fever	10	18	10	231	294	307
Typhus fever, tick-borne (RMSF)	19	24	13	647	607	889
Rabies, animal	86	102	102	4,233	4,176	4,896

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis	27
Botulism: Foodborne (Alaska 1)	11	Plague	7
Infant	39	Poliomyelitis, Paralytic	1
Other	1	Psittacosis (Mich. 1)	77
Brucellosis (Ky 1)	62	Rabies, human	-
Cholera	2	Tetanus	53
Congenital rubella syndrome	9	Trichinosis	30
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine) (Tex. 1)	36
Diphtheria	-		

*Seven of the 87 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending October 4, 1986 and October 5, 1985 (40th Week Ending)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	9,910	383	889	82	670,113	681,409	492	494	57	75	23	194
NEW ENGLAND	433	16	22	3	17,804	17,639	10	29	3	2	1	7
Maine	17	-	-	-	683	863	-	4	-	-	-	-
N H	10	5	2	-	436	431	-	-	-	-	-	-
Vt	4	3	4	2	200	258	-	1	-	-	-	-
Mass	237	3	5	-	6,853	7,134	2	15	3	2	1	7
R I	28	1	-	-	1,366	1,427	1	2	-	-	-	-
Conn	137	4	11	1	8,266	7,526	7	7	-	-	-	-
MID ATLANTIC	3,670	46	87	7	113,305	99,329	12	32	3	2	-	13
Upstate N Y	377	15	33	4	13,921	13,669	-	4	-	-	-	1
N Y City	2,474	5	18	-	64,102	49,236	-	-	-	1	-	11
N J	582	7	10	-	15,067	15,017	4	5	-	-	-	-
Pa	237	19	26	3	20,215	21,407	8	23	3	1	-	1
E N CENTRAL	614	65	264	11	86,160	90,620	22	66	1	4	7	5
Ohio	131	43	99	3	22,545	23,462	6	22	-	2	4	-
Ind	55	U	60	3	9,367	9,898	U	U	U	U	U	-
Ill	296	3	42	4	22,849	22,549	9	25	-	-	-	4
Mich	104	19	42	1	28,228	25,840	7	19	1	2	3	1
Wis	28	-	21	-	3,171	8,871	-	-	-	-	-	-
W N CENTRAL	193	22	60	9	28,999	31,587	13	25	1	1	6	3
Minn	72	-	24	-	4,154	4,698	1	3	-	-	1	1
Iowa	15	3	19	-	2,972	3,387	1	2	-	-	-	-
Mo	66	14	1	-	14,508	15,219	1	10	1	1	1	-
N Dak	2	-	3	-	251	215	-	-	-	-	-	-
S Dak	2	2	11	-	613	617	1	4	-	-	3	-
Nebr	8	1		1	2,233	2,689	3	-	-	-	1	-
Kans	28	2	2	6	4,268	4,762	6	6	-	-	-	2
S ATLANTIC	1,346	90	116	29	174,355	177,748	48	116	12	3	4	2
Del	19	1	6	-	2,878	3,387	2	1	-	-	-	-
Md	123	14	26	1	20,766	22,606	6	25	3	1	-	-
D C	172	1	-	1	13,104	11,904	1	1	-	-	-	-
Va	119	12	33	1	14,481	14,803	9	19	3	-	3	1
W Va	7	2	34	-	1,760	2,049	1	2	-	-	-	-
N C	58	8	15	1	26,909	27,599	2	11	1	1	-	-
S C	34	4	-	-	15,213	16,949	2	17	-	-	-	-
Ga	197	13	-	1	29,272	35,375	2	16	-	-	1	-
Fla	617	35	2	24	49,972	43,076	23	24	5	1	-	1
E S CENTRAL	112	49	56	4	54,519	57,430	4	21	4	4	-	1
Ky	25	3	27	1	6,044	6,676	1	8	3	-	-	-
Tenn	53	2	6	1	20,824	21,995	-	5	-	2	-	-
Ala	20	42	22	2	15,772	17,312	1	3	1	2	-	1
Miss	14	2	1	-	11,879	11,447	2	5	-	-	-	-
W S CENTRAL	740	32	128	6	79,546	85,800	56	40	4	22	3	19
Ark	24	1	-	2	7,277	8,327	1	9	1	-	-	1
La	123	1	6	-	14,199	16,501	-	3	-	-	-	1
Okla	27	5	19	-	9,159	9,543	3	1	1	4	-	-
Tex	566	25	103	4	48,911	51,429	52	27	2	18	3	17
MOUNTAIN	254	15	28	1	20,088	21,298	72	53	7	8	2	11
Mont	4	1	1	1	515	585	2	-	-	-	-	-
Idaho	3	-	-	-	664	718	8	-	1	1	-	-
Wyo	4	-	2	-	432	501	-	1	-	-	-	-
Colo	118	2	4	-	5,144	6,314	4	9	2	5	-	3
N Mex	20	-	3	-	2,155	2,442	18	9	-	-	1	-
Ariz	64	12	10	-	6,504	6,242	40	24	4	-	1	5
Utah	13	-	6	-	848	975	-	3	-	2	-	1
Nev	28	-	2	-	3,826	3,521	-	7	-	-	-	2
PACIFIC	2,548	48	128	12	95,337	99,958	255	112	22	29	-	133
Wash	119	-	11	-	6,953	7,727	15	9	1	-	-	15
Oreg	49	-	-	-	4,065	4,999	36	9	3	-	-	-
Calif	2,329	41	111	12	81,241	83,542	204	88	17	29	-	91
Alaska	11	-	6	-	2,077	2,323	-	2	-	-	-	-
Hawaii	40	7	-	-	1,001	1,367	-	4	1	-	-	27
Guam	-	-	-	-	151	160	-	-	-	-	-	1
P R	77	-	5	1	1,856	2,514	12	3	-	16	-	7
V I	3	U	-	-	188	348	U	U	U	U	U	-
Pac Trust Terr	-	-	-	-	378	706	2	-	-	-	-	43
Amer Samoa	-	-	-	-	39	-	-	-	-	-	-	2

N Not notifiable U Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending October 4, 1986 and October 5, 1985 (40th Week Ending)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	847	79	5,281	8	278	2,522	1,928	262	3,889	175	2,601	2,517	6	429	566
NEW ENGLAND	55	-	82	-	15	126	133	-	53	1	125	142	-	9	12
Maine	2	-	12	-	1	1	25	-	-	-	2	9	-	-	-
N H	3	-	43	-	-	-	6	-	13	-	61	68	-	1	2
Vt	1	-	-	-	-	-	16	-	3	-	3	3	-	1	-
Mass	31	-	24	-	12	118	30	-	9	-	29	41	-	4	6
R I	7	-	2	-	-	-	18	-	9	1	6	14	-	2	-
Conn	11	-	1	-	2	7	38	-	19	-	24	7	-	1	4
MID ATLANTIC	110	-	1,672	4	33	212	312	2	171	11	169	162	-	32	219
Upstate N Y	41	-	77	-	23	85	103	-	56	2	106	87	-	24	17
N Y City	29	-	668	-	4	70	67	-	29	7	10	21	-	5	177
N J	20	-	905	4 †§	4	28	30	1	41	2	17	7	-	3	11
Pa	20	-	22	-	2	29	112	1	45	-	36	47	-	-	14
E N CENTRAL	53	-	1,030	-	28	530	262	218	2,660	11	317	619	1	44	32
Ohio	16	-	-	-	10	57	105	1	109	7	145	81	-	1	-
Ind	2	U	19	U	11	57	24	U	34	U	26	188	U	-	1
Ill	15	-	683	-	4	297	68	215	2,033	-	32	61	1	33	15
Mich	17	-	59	-	-	60	57	2	269	4	32	41	-	8	15
Wis	3	-	269	-	3	59	8	-	215	-	82	248	-	2	1
W N CENTRAL	24	-	322	-	17	11	91	4	95	90	403	176	1	13	19
Minn	6	-	45	-	4	6	17	-	1	-	48	78	-	1	2
Iowa	1	-	133	-	1	-	11	2	29	1	19	28	-	1	1
Mo	10	-	25	-	6	2	31	-	17	-	18	28	-	1	7
N Dak	-	-	25	-	1	2	-	-	3	-	4	9	-	1	2
S Dak	-	-	-	-	-	-	5	-	1	-	14	2	-	-	-
Nebr	4	-	-	-	-	-	10	-	-	-	7	7	-	-	-
Kans	3	-	94	-	5	1	17	2	44	89	293	24	1	9	7
S ATLANTIC	104	68	626	-	56	314	346	9	194	10	686	453	-	12	51
Del	1	-	1	-	-	-	3	-	-	-	227	1	-	-	1
Md	14	-	26	-	9	105	44	1	18	-	159	263	-	-	6
D C	1	-	-	-	2	24	4	-	-	-	-	-	-	-	-
Va	26	-	36	-	24	28	60	2	37	1	35	17	-	-	2
W Va	4	-	2	-	-	33	3	1	42	-	23	4	-	-	9
N C	5	-	3	-	1	9	58	3	19	3	66	24	-	-	1
S C	6	-	274	-	-	3	32	-	12	-	18	2	-	-	3
Ga	10	-	79	-	14	8	51	-	28	-	122	85	-	-	-
Fla	37	68	205	-	6	104	91	2	38	6	36	57	-	12	29
E S CENTRAL	18	-	58	-	9	7	107	2	32	1	45	48	-	4	3
Ky	5	-	-	-	6	5	24	-	6	-	5	8	-	4	3
Tenn	1	-	55	-	1	1	37	2	21	-	16	19	-	-	-
Ala	8	-	1	-	1	-	33	-	4	-	23	17	-	-	-
Miss	4	-	2	-	1	1	13	-	1	1	1	4	-	-	-
W S CENTRAL	88	-	604	-	38	431	172	8	170	22	216	346	1	63	34
Ark	1	-	276	-	2	-	27	-	7	1	15	14	-	-	1
La	16	-	4	-	-	42	23	-	3	-	13	12	-	-	-
Okla	10	-	37	-	2	1	24	N	N	1	105	152	-	-	1
Tex	61	-	287	-	34	388	98	8	160	20	83	168	1	63	32
MOUNTAIN	31	1	302	3	29	538	94	6	228	-	235	177	-	23	6
Mont	-	-	-	-	8	137	8	-	5	-	14	9	-	2	-
Idaho	1	-	1	-	-	137	4	-	8	-	40	12	-	-	2
Wyo	-	-	-	-	-	4	2	-	-	-	4	-	-	1	-
Colo	8	-	2	3 †	8	13	15	-	12	-	62	66	-	1	-
N Mex	5	-	33	-	7	6	9	N	N	-	20	11	-	-	2
Ariz	11	-	252	-	6	241	21	6	184	-	56	34	-	2	1
Utah	3	-	12	-	-	-	9	-	13	-	35	45	-	14	-
Nev	3	1	2	-	-	-	26	-	6	-	4	-	-	3	1
PACIFIC	364	10	585	1	53	353	411	13	286	29	405	394	3	229	190
Wash	23	5	164	1 †	26	83	56	2	10	23	137	67	-	15	14
Oreg	15	-	7	-	4	5	31	N	N	-	12	40	-	1	1
Calif	325	5	387	-	22	241	303	11	250	4	241	241	3	208	126
Alaska	-	-	-	-	-	-	12	-	6	-	2	29	-	-	1
Hawaii	1	-	27	-	1	24	9	-	20	2	13	17	-	5	48
Guam	1	-	4	-	1	11	-	-	4	-	-	-	-	3	2
P R	4	-	36	-	-	63	3	-	31	-	13	10	-	60	25
V I	-	U	-	U	-	10	-	U	14	U	-	-	U	-	-
Pac Trust Terr	-	-	-	-	-	-	1	1	11	-	-	-	-	2	-
Amer Samoa	-	-	2	-	-	-	-	-	4	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending October 4, 1986 and October 5, 1985 (40th Week Ending)

Reporing Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tularemia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	20,109	20,613	5	16,831	16,263	114	231	647	4,233
NEW ENGLAND	359	454	-	543	548	1	13	12	7
Maine	15	13	-	33	40	-	-	-	-
N H	10	36	-	19	19	-	-	2	1
Vt	8	6	-	15	6	-	-	-	1
Mass	197	225	-	298	328	1	11	4	-
R I	18	14	-	40	42	-	-	3	3
Conn	111	160	-	138	113	-	2	3	2
MID ATLANTIC	2,890	2,771	-	3,380	2,971	1	20	31	523
Upstate N Y	148	211	-	474	523	-	3	19	65
N Y City	1,630	1,688	-	1,775	1,433	-	9	5	-
N J	506	538	-	580	400	1	7	2	16
Pa	606	334	-	551	615	-	1	5	442
E N CENTRAL	717	799	-	2,028	1,984	-	18	53	109
Ohio	99	115	-	354	352	-	4	48	9
Ind	87	71	U	215	246	-	2	-	16
Ill	351	381	-	859	864	-	3	2	33
Mich	139	182	-	505	408	-	7	3	23
Wis	41	50	-	95	114	-	2	-	28
W N CENTRAL	163	173	1	508	452	34	8	46	671
Minn	28	36	1	119	94	-	1	1	97
Iowa	6	17	-	42	48	1	-	1	151
Mo	88	89	-	252	221	26	6	23	66
N Dak	3	2	-	6	9	-	-	1	137
S Dak	6	5	-	23	22	2	-	6	141
Nebr	11	7	-	11	13	1	-	5	27
Kans	21	17	-	55	45	4	1	9	52
S ATLANTIC	6,042	6,046	-	3,271	3,284	9	39	302	1,015
Del	48	29	-	38	34	-	1	1	1
Md	333	367	-	237	278	2	14	28	496
D C	244	265	-	113	128	1	4	-	27
Va	278	226	-	273	287	2	8	44	149
W Va	18	18	-	97	87	-	3	8	37
N C	392	631	-	455	413	1	4	113	9
S C	534	631	-	424	409	-	-	70	53
Ga	1,153	1,063	-	530	556	3	-	36	162
Fla	3,036	2,916	-	1,106	1,092	-	5	2	81
E S CENTRAL	1,386	1,597	-	1,494	1,435	8	3	87	283
Ky	60	54	-	336	345	3	-	20	75
Tenn	476	490	-	441	413	4	1	39	108
Ala	423	496	-	469	433	1	1	16	98
Miss	427	557	-	248	244	-	1	12	2
W S CENTRAL	4,026	4,735	-	2,106	2,066	52	20	107	597
Ark	187	244	-	284	213	37	-	9	134
La	681	832	-	346	303	1	1	-	18
Okla	103	145	-	198	205	9	1	83	54
Tex	3,055	3,514	-	1,278	1,345	5	18	15	391
MOUNTAIN	460	558	2	393	418	7	14	8	577
Mont	6	6	-	24	46	1	1	4	183
Idaho	11	5	-	19	21	-	-	-	8
Wyo	2	7	-	-	5	-	-	1	242
Colo	106	141	-	34	50	3	1	3	29
N Mex	54	106	-	77	73	1	1	-	6
Ariz	195	251	-	186	185	-	7	-	95
Utah	16	5	2	28	12	1	3	-	5
Nev	70	37	-	25	26	1	1	-	9
PACIFIC	4,066	3,480	2	3,108	3,105	2	96	1	451
Wash	110	88	1	161	183	-	3	-	5
Oreg	88	79	-	104	103	-	-	-	-
Calif	3,842	3,259	1	2,665	2,593	1	88	1	438
Alaska	1	2	-	41	81	1	1	-	8
Hawaii	25	52	-	137	145	-	4	-	-
Guam	1	2	-	34	35	-	1	-	-
P R	699	651	-	271	291	-	5	-	36
V I	1	3	U	1	1	-	-	-	-
Pac Trust Terr	211	100	-	58	61	-	46	-	-
Amer Samoa	-	-	-	5	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending October 4, 1986 (40th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	610	418	115	40	15	22	45
Boston, Mass	179	108	43	13	3	12	19
Bridgeport, Conn	47	34	7	5	1	-	3
Cambridge, Mass	20	15	4	1	-	-	3
Fall River, Mass	32	26	4	-	2	-	-
Hartford, Conn	53	30	12	4	4	3	3
Lowell, Mass	23	17	6	-	-	-	3
Lynn, Mass	10	8	2	-	-	-	-
New Bedford, Mass	25	18	3	3	1	-	1
New Haven, Conn	42	28	9	4	1	-	1
Providence, R.I.	47	38	5	2	2	-	5
Somerville, Mass	6	6	-	-	-	-	-
Springfield, Mass	33	19	8	-	-	6	1
Waterbury, Conn	34	29	1	3	-	1	2
Worcester, Mass	59	42	11	5	1	-	4
MID ATLANTIC	2,745	1,788	569	265	68	55	130
Albany, N.Y.	56	44	6	1	2	3	2
Allentown, Pa	19	15	4	-	-	-	-
Buffalo, N.Y.	113	71	28	10	2	2	17
Camden, N.J.	34	14	16	3	1	-	-
Elizabeth, N.J.	20	16	3	-	1	-	-
Erie, Pa†	41	30	6	3	2	-	2
Jersey City, N.J.	43	25	12	3	2	1	2
N.Y. City, N.Y.	1,441	894	300	186	35	26	51
Newark, N.J.	59	32	10	10	3	4	3
Paterson, N.J.	33	19	10	1	1	2	1
Philadelphia, Pa	398	274	83	27	9	5	24
Pittsburgh, Pa†	80	55	15	4	3	3	2
Reading, Pa	31	26	3	-	-	2	3
Rochester, N.Y.	119	83	27	4	3	2	10
Schenectady, N.Y.	23	18	3	-	1	1	1
Scranton, Pa†	34	28	4	-	1	1	2
Syracuse, N.Y.	97	73	17	4	1	2	7
Trenton, N.J.	49	29	11	7	1	1	-
Utica, N.Y.	31	22	8	1	-	-	1
Yonkers, N.Y.	24	20	3	1	-	-	2
E.N. CENTRAL	2,206	1,393	495	176	60	82	83
Akron, Ohio	52	30	16	2	1	3	-
Canton, Ohio	31	22	6	2	-	1	2
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	104	68	21	8	3	4	8
Cleveland, Ohio	179	104	45	22	3	5	5
Columbus, Ohio	81	45	28	4	1	3	4
Dayton, Ohio	106	67	21	10	5	3	3
Detroit, Mich	273	155	64	28	14	12	7
Evansville, Ind	34	22	7	1	4	-	-
Fort Wayne, Ind	56	34	13	7	2	-	2
Gary, Ind	12	2	6	1	2	1	-
Grand Rapids, Mich	56	39	14	-	1	2	9
Indianapolis, Ind	177	110	43	13	2	9	3
Madison, Wis	34	19	5	5	2	3	3
Milwaukee, Wis	136	100	20	7	3	6	2
Peoria, Ill	47	35	8	2	1	1	5
Rockford, Ill	31	22	2	3	2	2	4
South Bend, Ind	61	41	15	3	1	1	3
Toledo, Ohio	120	80	27	8	3	2	6
Youngstown, Ohio	52	36	9	5	-	2	1
W.N. CENTRAL	782	543	146	38	28	26	35
Des Moines, Iowa	43	30	10	1	1	1	3
Duluth, Minn	39	31	1	2	3	2	1
Kansas City, Kans	44	29	9	5	1	-	1
Kansas City, Mo	98	61	27	5	2	3	6
Lincoln, Nebr	29	20	5	2	1	1	3
Minneapolis, Minn	174	118	32	10	6	8	1
Omaha, Nebr	95	69	19	1	3	3	7
St Louis, Mo	111	82	14	7	7	1	11
St Paul, Minn	73	52	17	3	-	1	-
Wichita, Kans	76	51	12	2	4	6	2
S. ATLANTIC	1,160	683	247	133	41	55	
Atlanta, Ga	138	71	37	22	7	1	
Baltimore, Md	161	100	33	18	9	1	
Charlotte, N.C.	70	44	11	10	1	4	
Jacksonville, Fla	103	64	26	4	5	4	
Miami, Fla	119	61	25	20	5	8	
Norfolk, Va	55	30	8	6	2	9	
Richmond, Va	100	60	27	10	2	1	
Savannah, Ga	36	19	7	6	1	3	
St Petersburg, Fla	100	74	14	4	1	7	
Tampa, Fla	62	45	8	3	4	2	
Washington, D.C.	191	97	48	27	4	14	
Wilmington, Del	25	18	3	3	-	1	
E.S. CENTRAL	741	483	160	52	20	26	
Birmingham, Ala	89	62	19	-	1	7	
Chattanooga, Tenn	57	40	15	2	-	-	
Knoxville, Tenn	58	31	15	5	3	4	
Louisville, Ky	117	70	31	12	2	2	
Memphis, Tenn	192	121	39	13	10	9	
Mobile, Ala	71	51	16	-	1	3	
Montgomery, Ala	35	22	7	5	1	-	
Nashville, Tenn	122	86	18	15	2	1	
W.S. CENTRAL	1,260	717	302	121	61	59	
Austin, Tex	53	34	8	5	3	3	
Baton Rouge, La	19	10	5	2	-	2	
Corpus Christi, Tex	33	20	9	1	1	2	
Dallas, Tex	211	105	50	28	12	16	
El Paso, Tex	44	29	10	1	2	2	
Fort Worth, Tex	85	50	19	5	6	5	
Houston, Tex	339	177	88	48	15	11	
Little Rock, Ark	60	35	15	4	5	1	
New Orleans, La	120	80	26	6	5	3	
San Antonio, Tex	160	88	43	11	9	9	
Shreveport, La	58	38	14	3	1	2	
Tulsa, Okla	78	51	15	7	2	3	
MOUNTAIN	626	406	122	58	15	24	
Albuquerque, N.Mex	73	51	14	6	-	1	
Colo. Springs, Colo	38	22	7	5	2	2	
Denver, Colo	111	67	22	13	5	4	
Las Vegas, Nev	89	54	23	8	1	3	
Ogden, Utah	22	17	3	2	-	-	
Phoenix, Ariz	127	81	22	15	4	5	
Pueblo, Colo	14	7	5	2	-	-	
Salt Lake City, Utah	44	28	5	2	2	7	
Tucson, Ariz	108	79	21	5	1	2	
PACIFIC	1,830	1,187	346	177	67	46	
Berkeley, Calif	24	17	4	2	-	-	
Fresno, Calif	83	51	12	8	6	6	
Glendale, Calif	24	22	1	-	1	-	
Honolulu, Hawaii	71	48	12	7	3	1	
Long Beach, Calif	81	55	14	4	3	5	
Los Angeles, Calif	426	254	80	63	19	5	
Oakland, Calif	79	51	11	7	7	3	
Pasadena, Calif	20	16	1	2	1	-	
Portland, Oreg	120	78	25	11	4	2	
Sacramento, Calif	139	81	35	14	2	6	
San Diego, Calif	158	111	29	10	6	2	
San Francisco, Calif	153	95	34	21	2	1	
San Jose, Calif	190	138	30	11	3	8	
Seattle, Wash	170	106	42	11	8	3	
Spokane, Wash	53	36	11	3	1	2	
Tacoma, Wash	39	28	5	3	1	2	
TOTAL	11,960††	7,618	2,502	1,060	375	395	

* Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

** Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages.

§ Data not available. Figures are estimates based on average of past 4 weeks.

Current Trends

North Carolina Drownings, 1980-1984

Unintentional drownings in North Carolina in the period 1980-1984 were examined using records obtained from the North Carolina Office of the Chief Medical Examiner, which investigates all deaths from intentional and unintentional injury. A total of 1,052 persons drowned in the 5-year period, 953 of whom were North Carolina residents, for an average annual crude mortality rate of 3.2 drowning deaths/100,000 residents (Table 1).

Drowning rates per 100,000 population were higher for nonwhites than for whites (4.8 vs. 2.6) and higher for males than for females (5.8 vs. 0.8). Rates were highest for nonwhite males (8.8), followed by white males (4.7), nonwhite females (1.2), and white females (0.7) (Table 1). For all race/sex groups combined, drowning rates were highest for persons ages 15-29 years (4.6/100,000) (Table 2).

Most drownings occurred in lakes or ponds (39%), rivers or creeks (29%), or oceans and bays (11%). Six times as many drownings occurred in natural settings as in constructed facilities (e.g., bathtubs, pools).

At the time drownings occurred, most victims were swimming (41%) or fishing (15%) (Table 3). Drownings among members of certain demographic subgroups and among persons

TABLE 1. Race- and sex-specific drowning rates and percentages of victims with blood alcohol concentrations ≥ 100 mg%, North Carolina, 1980-1984

	Drownings[*]		BAC ≥ 100 mg %[†]	
Race/sex of victims	Number	Rate/100,000 residents	Number positive	Percentage positive
White male	521	4.7	154/474	32.5
White female	76	0.7	13/58	22.4
Nonwhite male	309	8.8	110/275	40.0
Nonwhite female	47	1.2	6/32	18.8
Total	**953**		**283/839**	33.7

[*] North Carolina residents.

[†] Of 1,052 drowning victims, 839 were tested for BAC.

TABLE 2. Age-specific drowning rates and percentages of victims with blood alcohol concentration ≥ 100 mg%, North Carolina, 1980-1984

	Drownings[*]		BAC ≥ 100 mg%[†]	
Age of victims (years)	Number	Rate/100,000 residents	Number positive	Percentage positive
0-14	170	2.6	1/87	1.1
15-29	379	4.6	120/374	32.1
30-44	177	2.9	84/169	49.7
45-59	124	2.7	50/119	42.0
>60	103	2.3	28/90	31.1
Total	**953**		**283/839**	33.7

[*] North Carolina residents.

[†] Of 1,052 drowning victims, 839 were tested for BAC.

Drownings – Continued

with some pre-existing medical conditions showed special associations with specific activities. For example, males accounted for 98% of all fishing deaths, and females accounted for 43% of all bath-associated deaths. White males accounted for a higher percentage (82%) of other recreational deaths (e.g., canoeing, sailing) than they did for all categories of drownings (56%). Children less than 5 years of age accounted for a higher percentage (25%) of bath-associated deaths than they did for all categories of drownings (6%). Although only 7% of all drowning victims were known to have seizure disorders, persons with seizure disorders accounted for 53% of all drownings resulting from bathing in a bathtub.

Of all drownings, 56% were witnessed. However, the proportion of drownings that were witnessed ranged from 92% for swimming in a group to 3% for bathing in a bathtub. Of the 74 children ages 0-5 years who drowned, 59 (80%) were unattended. Of all persons who drowned, 2% drowned while attempting to rescue other drowning persons.

Blood-alcohol tests were performed for 839 (80%) of the 1,052 drowning victims. Alcohol was detected in 48% of victims tested; in 34% of victims tested, blood-alcohol levels were ≥ 100 mg%,[*] the legal level of intoxication in North Carolina. Blood-alcohol presence varied by demographic subgroup and predominated among nonwhite males (40%) and 30- to 44-year-olds (50%) (Tables 1 and 2).

Reported by M Patetta, MA, State Center for Health Statistics, P Biddinger, MD, Office of the Chief Medical Examiner, J Freeman, DVM, MPH, Environmental Epidemiology Branch, JN MacCormack, MD, State Epidemiologist, North Carolina Division of Health Services; Division of Field Services, Epidemiology Program Office, Division of Injury Epidemiology and Control, Center for Environmental Health, CDC.

Editorial Note: Drowning is the third most common cause of unintentional injury death in the United States (*2*). Drowning rates reported for North Carolina are higher than the overall national drowning rate of 2.4/100,000 population (*1,2*). Although most surveys of drowning consist of data derived from death certificate ICD codes, the North Carolina data reported here were abstracted from medical examiner reports, which also include findings of an investigation by a county medical examiner, autopsy reports, and toxicologic studies.

Age, race, and sex groups at highest risk for drowning in North Carolina are similar to

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[*] The level of alcohol in the blood is defined as "milligrams of alcohol per 100 milliliters of blood" and is expressed as milligrams percent (mg%).

TABLE 3. Activity-specific percentages for drownings and percentages of victims with blood alcohol concentrations ≥ 100 mg%, North Carolina, 1980-1984

	Drownings[*]		BAC ≥ 100 mg%[†]	
Activity involving victims	Number	Percentage	Number positive	Percentage positive
Swimming	435	41.3	124/358	34.6
Fishing	157	14.9	42/137	30.7
Motor vehicle crash	83	7.9	35/69	50.7
Other recreation	65	6.2	15/52	28.8
Motorboating	51	4.8	14/40	35.0
Bath-associated	40	3.8	6/31	19.4
Rescue attempt	24	2.3	4/21	19.0
All other[§]	197	18.7	43/131	32.8
Total	**1,052**		**283/839**	**33.7**

[*] All drownings reported in North Carolina during 5-year period.

[†] Of 1,052 drowning victims, 839 were tested for BAC.

[§] Most activities involved unintentional entry into a body of water such as a creek, ditch, or pond.

Drownings – Continued

those reported in national data (*1*). The proportions of North Carolina drownings occurring in lakes/ponds and rivers/creeks are similar to those reported for Georgia (*3*); however, the occurrence of drownings in natural settings relative to those in constructed facilities is proportionately higher. The proportions of drownings resulting from activities such as swimming and fishing (sometimes reported in other studies as "falling off docks or bridges") are similar to those reported from national surveys (*2*) and from other states (*3,4*).

Studies based on death certificates generally do not permit assessment of the impact of pre-existing medical conditions on drowning occurrence, because such information may not be provided in death certificates. The North Carolina data support the hypothesis that persons with seizure disorders are at higher risk for drowning than the general population (*4,5*); persons with seizure disorders are more likely to have a seizure following alcohol intoxication (*6,7*).

Because approaches to limiting the consumption of alcohol may be difficult to enforce, efforts should be made to increase public awareness of the physical impairments resulting from alcohol use which pose risks for swimmers, fishermen, and boaters. Strategies for injury prevention rely primarily on elimination of the hazard, creation of barriers between the hazard and the person at risk, instruction in personal protective measures against the hazard, and institution of measures to minimize damage associated with the hazard (*8*). In addition to human behavioral factors, intervention should focus on the modification of factors in the socioeconomic environment, as well as such factors as vehicles and equipment in the physical environment. Previous studies showed that alcohol was associated with about 50% of drownings among teenagers and adults (*4*). Enforcing limitations on the consumption of alcohol near water is difficult, although public awareness that the physical impairment resulting from alcohol use is as dangerous for swimmers, fishermen, and boaters as it is for motor vehicle operators could almost certainly be improved. Additionally, it must be realized that alcohol consumption among some high-risk individuals (e.g., 15- to 24-year-olds) is highly affected by the accessibility of alcohol. Sales and consumption of alcohol among this group are inversely related to the cost of alcohol (*9*). Recent upward alterations in the legal drinking age may lead to reductions in mortality associated with drowning.

Seventy-nine percent of North Carolina drowning deaths occurred in such natural settings as lakes, rivers, and bays. Of the 7,000 unintentional drownings that occur each year in the United States, about 17% involve boats—primarily recreational craft (*3*). Despite a 59% increase in the number of recreational craft in operation in the United States between 1973 and 1982, the recreational boating fatality rate (about 90% due to drownings) decreased 56% during the same period (*3*). Although the causes for this decrease have not been determined, they may include industry and government initiatives that have resulted in safety improvement in boats, increased use of personal flotation devices, and regulations that promote safe boating. Water safety instruction should be designed to lead to improvements in swimming ability, discourage risk-taking behavior such as alcohol use near water, encourage the use of personal flotation devices on boats, and teach rescue techniques that do not endanger the life of the rescuer. However, studies of the efficacy of water safety instruction programs are needed before such instruction is advocated as an effective intervention technique (*10*).

Although most North Carolina drownings do not occur in settings—such as pools—that could be fenced or drained when not in use, in the United States as a whole, most home-related drownings do occur in swimming pools and bathtubs. Therefore, child-proof fencing with self-latching gates around potentially dangerous bodies of water, including swimming pools, may reduce drowning among young children (*11*).

Drownings – Continued

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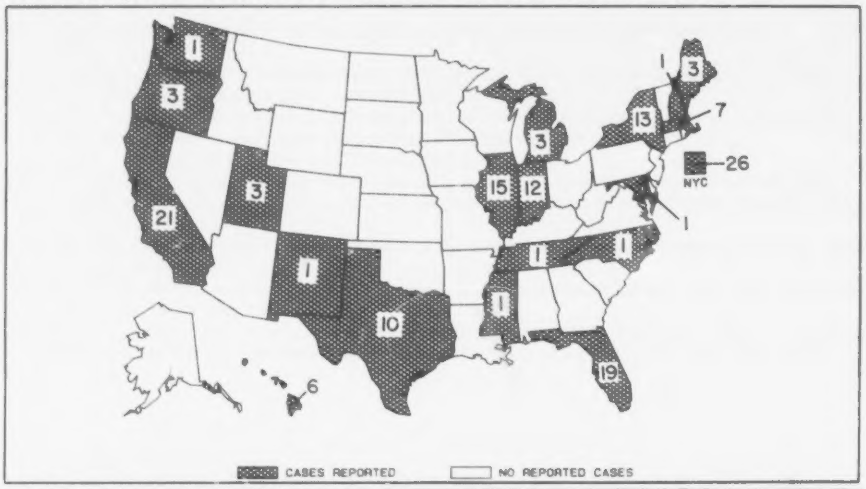
FIGURE I. Reported measles cases — United States, weeks 36-39, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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MORBIDITY AND MORTALITY WEEKLY REPORT

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641 Use of Smokeless Tobacco — Wisconsin
649 Update: *Aedes albopictus* Infestation — United States

Current Trends

Use of Smokeless Tobacco — Wisconsin

The recent marked increase in smokeless tobacco use, predominantly by pre-adolescent and adolescent males, has prompted action on local, state, and Federal levels. Smokeless tobacco products have apparently become popular among students in schools across the United States. Data from various regions of the country indicate that 8%-36% of male high school- and college-age students use smokeless tobacco products regularly (*1*). One study reported an 11% usage rate among 8- to 9-year-olds (*2*), and a recent U.S. Inspector General's national survey reported the overall average age at first use to be 10.4 years of age—in the 5th grade (*3*). Two other recent surveys reported 35% and 36% smokeless tobacco use in male adolescent populations in Pittsburgh, Pennsylvania (*4*), and Arkansas (*5*), respectively.

Data on smokeless tobacco usage among Wisconsin school-age children reflect national trends. A 1985 Dane County youth survey (*6*) of students in grades 7-12 showed that more males used smokeless tobacco than smoked cigarettes. For example, 45% of 8th-grade boys reported that they had tried smokeless tobacco at least once. Regular use of smokeless tobacco products increased from 9% of 7th-grade boys to 22% of 12th-grade boys (Table 1). Fifteen percent of 12th-grade boys were daily users.

Other preliminary data from the Wisconsin Division of Health's Project Model Health for rural Wisconsin schools demonstrate the following: 22% of 8th-grade boys in specific schools are regular users of smokeless tobacco; 35% of 8th-grade girls have tried smokeless tobacco; 12 years is the mean age of initiating smokeless tobacco use; among regular users, the students chew or dip smokeless tobacco an average of 6 times/day, with 25% chewing or dipping over 10 times/day; the average duration time per dip or chew is 1 hour. On the basis

TABLE 1. Frequency of smokeless tobacco use among school-age males, by grade in school — Dane County (Madison), Wisconsin

Grade level		No use (%)	Regular use (%)*	Daily use (%)
7	(n=327)	68	9	3
8	(n=327)	55	12	6
9	(n=414)	53	12	3
10	(n=393)	50	16	8
11	(n=371)	53	14	11
12	(n=349)	52	22	15

*More than 1 time/week.

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Smokeless Tobacco – Continued

of these data, the Wisconsin Division of Health has projected that one in five pre-adolescent and adolescent males is a regular smokeless tobacco user in specific Wisconsin communities.

Reported by RB Jones, DDS, DP Moberg, PhD, HA Anderson, MD, Bureau of Community Health and Prevention, JP Davis, MD, State Epidemiologist, Wisconsin Div of Health; Dental Disease Prevention Activity, Center for Prevention Services, Div of Health Education, Center for Health Promotion and Education, CDC.

Editorial Note: Smokeless tobacco products include both snuff and chewing tobacco. Moist snuff, packaged in small tins, is most commonly used by young people in the United States (*7*). Sales of moist snuff have increased substantially in recent years, possibly as a result of successful tobacco company marketing strategies. For example, sales rose 55% during the period 1978-1984, while cigarette sales were decreasing (*8*). A bill to ban electronic media advertising passed Congress and became law, the Comprehensive Smokeless Tobacco Health Education Act of 1986 (P.L. 99-252), in February 1986. The ban took effect in August 1986; before that time, smokeless tobacco products were advertised without restriction on television and radio and had no health-warning labels. P.L. 99-252 also requires that by February 1987 all smokeless tobacco products and print advertisements be accompanied by one of the following three health warnings that are to be rotated every 4 months: (1) WARNING: THIS PRODUCT MAY CAUSE MOUTH CANCER, (2) WARNING: THIS PRODUCT MAY CAUSE GUM DISEASE, and (3) WARNING: THIS PRODUCT IS NOT A SAFE ALTERNATIVE TO CIGARETTES. Outdoor advertisements are exempt from this law.

Several factors may have contributed to passive acceptance of smokeless tobacco in schools and work-place settings, even where smoking restrictions and prohibitions are strictly enforced. For example, marketing campaigns have frequently used active and retired professional athletes and entertainers to promote the use of smokeless tobacco. Smokeless tobacco products are usually displayed in locations removed from smoking tobacco in convenience stores, grocery stores, and other retail outlets, often close to candy and other fast-food products. The image of smokeless tobacco also has been enhanced by promotional give-aways on college campuses, at state fairs, and at sporting events; free samples through printed advertising coupons; and mail-order, product-identified clothing and accessories.

Health professionals and the general public are well aware of the causal link between cigarette use and a multitude of detrimental health conditions. In contrast, the health effects of smokeless tobacco are not so well recognized. Smokeless tobacco products, especially moist snuff, contain potent carcinogens. Studies have consistently demonstrated a strong association between snuff use and oral cancer (*7*). Carcinogens in the five most popular U.S. snuff brands include polynuclear aromatic hydrocarbons, radiation-emitting polonium, and a variety of tobacco-specific nitrosamines. Levels of nitrosamines in commercial snuff range from 9,600-289,000 parts/billion (ppb) (*9*), which are hundreds of times higher than the levels allowed in foods and commercial products (*7*). Nitrosamines are strictly limited in these products. Bacon and beer, for example, are each limited to 5 ppb, and rubber nipples of baby bottles are limited to 10 ppb of nitrosamines.

Tissue changes have been reported for school-age children who use smokeless tobacco. One study showed that in rural Colorado, 62.5% of teenagers who used smokeless tobacco had lesions described as alterations in texture, color, or contour of the mucosal lining, localized periodontal degeneration, or a combination of the two (*10*). In the recent Inspector General's survey (*3*), 39% of regular users of smokeless tobacco reported that they had a white, wrinkled patch (which characterizes leukoplakia, a precancerous condition), and 37% reported some other form of sore, ulcer, blister, or lesion of the gums, lips, or mouth. It has been estimated that from 1% to 18% of all leukoplakias transform to malignancies (*7*).

Smokeless Tobacco – Continued

Smokeless tobacco use may also be associated with a number of other conditions including localized gingival recession, tooth loss, tooth abrasion, and stained teeth.

Exposure to nicotine from smokeless tobacco use is comparable with nicotine exposure from cigarette smoking; therefore, nicotine-related health consequences of smokeless tobacco use may be similar to those of smoking. In addition to addiction, nicotine may contribute to coronary artery and peripheral vascular disease, hypertension, peptic ulcer disease, and fetal morbidity and mortality (*11*).

The January 1986 National Institutes of Health Consensus Development Conference concerning the health implications of smokeless tobacco use concluded that the use of smokeless tobacco is one of a number of health-endangering behaviors that raise the clear potential for long-term and serious consequences (*7*).

In 1986, almost 30 years after the Public Health Service's first statement on the health effects of cigarette smoking, a comprehensive review by the Advisory Committee to the Surgeon General on the health consequences of using smokeless tobacco concluded the following:

> After a careful examination of the relevant epidemiologic, experimental, and clinical data, the committee concludes that the oral use of smokeless tobacco represents a significant health risk. It is not a safe substitute for smoking cigarettes. It can cause cancer and a number of noncancerous oral conditions and can lead to nicotine addiction and dependence (*11*).

The Division of Health, Wisconsin Department of Health and Social Services, a) has suggested that preventive and regulatory actions are needed to offset a trend in smokeless tobacco use that may produce increased oral cancer death rates for this generation of young people, and b) has proposed the following measures (*12*):

- Educational campaigns to increase public awareness of the possible adverse health effects caused by smokeless tobacco use. Students, school officials, coaches, and parents should be informed of these health effects.
- State laws to prohibit sales to minors. Presently, 14 states have no such law.
- Additional excise taxes levied on smokeless tobacco products. Presently, 28 states tax smokeless tobacco products.
- State laws enacted to prohibit free distribution. Only two states have such a law.
- A ban placed on media advertising.
- A requirement for strong health-warning labels.
- Increased awareness of health professionals concerning the effects of smokeless tobacco use. Because a substantial number of pre-adolescent and adolescent males may be regular smokeless tobacco users, oral examinations should be carried out to detect oral lesions.
- Primary prevention programs, as well as cessation programs, need to be developed and implemented.

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TABLE I. Summary—cases specified notifiable diseases, United States

Disease	41st Week Ending			Cumulative, 41st Week Ending		
	Oct. 11, 1986	Oct. 12, 1985	Median 1981-1985	Oct. 11, 1986	Oct. 12, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	200	271	N	10,091	6,267	N
Aseptic meningitis	270	414	315	7,760	7,854	7,538
Encephalitis: Primary (arthropod-borne & unspec.)	36	50	54	928	1,002	1,200
Post-infectious	2	2	1	84	106	76
Gonorrhea: Civilian	16,710	18,245	18,245	689,025	699,654	708,495
Military	261	196	317	12,965	16,528	19,206
Hepatitis: Type A	376	539	457	17,281	17,577	17,577
Type B	421	540	431	20,031	20,325	18,727
Non A, Non B	35	75	N	2,706	3,254	N
Unspecified	82	120	137	3,528	4,513	5,727
Legionellosis	13	12	N	563	586	N
Leprosy	6	2	2	200	293	195
Malaria	10	24	13	857	825	825
Measles: Total*	46	35	23	5,580	2,557	2,372
Indigenous	45	34	N	5,302	2,130	N
Imported	1	1	N	278	427	N
Meningococcal infections: Total	19	41	41	1,950	1,894	2,182
Civilian	19	41	41	1,948	1,888	2,167
Military	-	-	-	2	6	11
Mumps	93	49	44	3,983	2,384	2,623
Pertussis	117	82	41	2,726	2,599	1,920
Rubella (German measles)	5	5	5	434	571	813
Syphilis (Primary & Secondary): Civilian	348	540	540	20,546	21,153	24,150
Military	1	1	9	129	139	309
Toxic Shock syndrome	6	7	N	275	301	N
Tuberculosis	339	427	427	17,185	16,690	18,377
Tularemia	7	6	6	116	150	221
Typhoid fever	4	9	13	236	303	313
Typhus fever, tick-borne (RMSF)	17	13	14	664	620	903
Rabies, animal	81	100	111	4,324	4,276	4,976

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1986		Cum. 1986
Anthrax	-	Leptospirosis	27
Botulism: Foodborne	11	Plague	7
Infant (Wash. 1)	40	Poliomyelitis, Paralytic	1
Other	1	Psittacosis	77
Brucellosis (Ark. 1)	63	Rabies, human	-
Cholera	2	Tetanus (N.J. 1, Fla. 1)	54
Congenital rubella syndrome	9	Trichinosis	30
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine) (Tex. 1)	37
Diphtheria	-		

*One of the 46 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending October 11, 1986 and October 12, 1985 (41st Week)

porting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
ITED STATES	10091	270	928	84	689,025	699,654	376	421	35	82	13	200
W ENGLAND	432	2	22	3	18,332	18,046	6	35	2	13	3	7
ne	17	1	-	-	691	908	-	2	1	-	-	-
)	10	-	2	-	449	450	-	-	-	-	-	-
	4	-	4	2	209	263	1	-	-	-	-	-
ss	237	1	5	-	7,071	7,339	4	25	1	13	3	7
	28	-	-	-	1,401	1,447	-	-	-	-	-	-
nn	136	-	11	1	8,511	7,639	1	8	-	-	-	-
) ATLANTIC	3,795	39	87	7	117,506	101,752	21	34	2	18	-	14
state N Y	378	28	33	4	14,426	13,888	15	14	2	1	-	1
City	2,595	2	18	-	67,320	50,436	1	6	-	15	-	12
	585	9	10	-	15,283	15,439	5	14	-	2	-	-
	237	-	26	3	20,477	21,989	-	-	-	-	-	1
CENTRAL	615	80	280	11	88,657	92,977	18	37	2	3	3	5
o	131	48	108	3	23,223	24,315	4	13	1	1	3	-
	52	9	64	3	10,153	10,043	2	6	-	-	-	-
	296	-	42	4	23,150	22,827	3	5	-	-	-	4
h	104	23	45	1	28,886	26,669	9	13	1	2	-	1
s	32	-	21	-	3,245	9,123	-	-	-	-	-	-
N CENTRAL	194	12	63	9	29,929	32,496	13	8	2	-	1	3
n	72	-	26	-	4,243	4,790	5	4	1	-	-	1
a	15	2	20	-	3,058	3,503	-	-	-	-	1	-
	66	5	1	-	15,153	15,867	4	3	-	-	-	-
Dak	2	-	3	-	256	227	-	-	-	-	-	-
Dak	2	3	11	-	622	630	2	-	1	-	-	-
or	9	-	-	1	2,243	2,689	-	-	-	-	-	-
s	28	2	2	8	4,354	4,790	2	1	-	-	-	2
ATLANTIC	1,349	64	121	31	180,337	182,725	62	125	10	7	4	2
	19	2	6	-	3,003	3,492	2	2	-	1	-	-
	123	2	27	1	21,182	23,339	6	21	4	-	-	-
	170	-	-	1	13,387	12,331	-	6	-	-	-	-
	125	16	33	1	14,887	15,336	3	21	1	-	1	1
Va	7	-	37	-	1,803	2,118	1	4	-	1	-	-
	60	11	15	2	27,772	28,333	-	9	3	3	-	-
	34	-	-	-	15,688	17,434	-	11	-	-	-	-
	197	10	-	1	30,017	36,154	5	8	1	-	2	-
	614	23	2	25	52,598	44,188	45	43	1	2	1	1
CENTRAL	115	23	58	4	55,948	59,628	4	36	2	-	1	1
	25	3	28	1	6,206	6,818	2	8	-	-	-	-
n	53	9	7	1	21,377	22,643	-	13	1	-	-	-
	23	11	22	2	16,199	18,036	1	14	1	-	-	1
s	14	-	1	-	12,166	12,131	1	1	-	-	1	-
S CENTRAL	742	38	140	6	81,845	87,792	77	61	5	25	1	19
	26	-	-	2	7,752	8,543	1	1	-	4	-	1
	124	5	8	-	14,521	16,958	7	11	-	-	1	1
a	27	5	19	-	9,458	9,795	4	3	-	1	-	-
	565	28	113	4	50,114	52,496	65	46	5	20	-	17
UNTAIN	257	7	29	1	20,755	21,947	73	36	2	7	-	11
nt	4	-	1	1	555	597	2	3	-	-	-	-
ho	3	-	-	-	688	747	10	-	-	-	-	-
o	4	-	2	-	446	515	-	-	-	-	-	-
o	118	1	4	-	5,323	6,403	6	8	-	3	-	3
Mex	20	-	3	-	2,203	2,466	21	5	-	-	-	-
z	67	6	11	-	6,672	6,594	28	15	2	4	-	5
h	13	-	6	-	870	1,013	5	4	-	-	-	1
	28	-	2	-	3,998	3,612	1	1	-	-	-	2
CIFIC	2,592	5	128	12	95,716	102,291	102	49	8	9	-	138
sh	119	3	11	-	7,094	7,927	64	33	3	9	-	17
g	49	-	-	-	4,213	5,118	35	13	3	-	-	-
if	2,372	U	111	12	81,241	85,476	U	U	U	U	U	91
ska	12	-	6	-	2,143	2,375	3	-	1	-	-	-
wai	40	2	-	-	1,025	1,395	-	3	1	-	-	30
am	-	-	-	-	158	161	-	-	-	-	-	1
	77	3	5	1	1,895	2,542	4	6	-	3	-	7
	3	-	-	-	199	348	-	-	-	-	-	-
Trust Terr	-	-	-	-	388	706	1	-	-	-	-	43
er Samoa	-	-	-	-	42	-	-	-	-	-	-	2

Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending October 11, 1986 and October 12, 1985 (41st Week)

Reporting Area	Malaria	Measles (Rubeola) Indigenous		Imported*		Total	Meningococcal Infections	Mumps		Pertussis			Rubella		
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	857	45	5,302	1	278	2,557	1,950	93	3,983	117	2,726	2,599	5	434	571
NEW ENGLAND	55		82		15	126	136	2	56		132	145		9	12
Maine	2		12		1	1	25				2	9			
N.H.	3		43				6		13		68	68		1	2
Vt.	1						16	1	4		3	3		1	
Mass.	31		24		12	118	32		9		29	43		4	6
R.I.	7		2				19		9		6	15		2	
Conn.	11		1		2	7	38	1	21		24	7		1	4
MID ATLANTIC	112	13	1,685		33	212	316	4	175	2	172	176	1	33	221
Upstate N.Y.	43		77		23	85	106	2	58	1	108	93	1	25	17
N.Y. City	29	13	681		4	70	68		29		10	23		5	179
N.J.	20		905		4	28	30	2	43		17	7		3	11
Pa.	20		22		2	29	112		45	1	37	52			14
E.N. CENTRAL	56	11	1,042		28	533	267	59	2,719	1	318	640		44	32
Ohio	18				10	58	106		109		145	86		1	
Ind.	2	6	25		11	57	27		34		26	188			1
Ill.	15	5	689		4	299	69	53	2,086		32	61		33	15
Mich.	18		59			60	57	6	275	1	33	43		8	15
Wis.	3		269		3	59	8		215		82	262		2	1
W.N. CENTRAL	27		322		17	11	91	7	102	99	502	181		13	19
Minn.	7		45		4	6	17		1	1	49	81		1	2
Iowa	1		133		1		11	1	30		19	28		1	1
Mo.	10		25		6	2	31		17		18	28		1	7
N. Dak.			25		1	2			3		5	9		1	2
S. Dak.	2						5		1		14	3			
Nebr.	4						10				7	8			
Kans.	3		94		5	1	17	6	50	98	390	24		9	7
S. ATLANTIC	104	21	647		56	319	351	5	199	9	695	464	1	13	51
Del.	1		1				4				227	1			1
Md.	14		26		9	107	44		18	2	161	267			6
D.C.	1				2	27	4								
Va.	26		36		24	28	61		37	1	36	17			2
W. Va.	4		2			33	3	2	44		23	4			9
N.C.	5		3		1	9	58	1	20		66	25			1
S.C.	6		274			3	33		12		18	2			3
Ga.	10		79		14	8	52		28		122	88			
Fla.	37	21	226		6	104	92	2	40	6	42	60	1	13	29
E.S. CENTRAL	18		58		9	7	107	3	35	2	47	49		4	3
Ky.	5				6	5	24		6		5	8		4	3
Tenn.	1		55		1	1	37	3	24		16	19			
Ala.	8		1		1		33		4	2	25	18			
Miss.	4		2		1	1	13		1		1	4			
W.S. CENTRAL	90		604		38	431	175	11	181	1	217	360		63	34
Ark.	1		276		2		27		7		15	14			
La.	16		4			42	23		3		13	12			1
Okla.	10		37		2	1	27	N	N	1	106	154			1
Tex.	63		287		34	388	98	11	171		83	180		63	32
MOUNTAIN	31		302		29	539	96	2	230	1	236	188		23	6
Mont.					8	137	9		5	1	15	9		2	
Idaho	1		1			137	4		8		40	14			2
Wyo.						5	2				4			1	
Colo.	8		2		8	13	16		12		62	71		1	
N. Mex.	5		33		7	6	9	N	N		20	11			2
Ariz.	11		252		6	241	21	2	186		56	38		2	1
Utah	3		12				9		13		35	45		14	
Nev.	3		2				26		6		4			3	1
PACIFIC	364		560	1	53	379	411		286	2	407	397	3	232	193
Wash.	22		139	1†	26	106	56		10	1	138	69	1	16	14
Oreg.	15		7		4	5	31	N	N		12	40	2	3	1
Calif.	325	U	387	U	22	245	303	U	250	U	241	242	U	208	129
Alaska							12		6		2	29			1
Hawaii	1		27		1	24	9		20	1	14	17		5	48
Guam	1		4		1	11			4					3	2
P.R.	4		36			63	3	1	32	2	15	10		60	26
V.I.						10		1	15						
Pac. Trust Terr.							1		11					2	
Amer. Samoa			2					1	5					1	

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending October 11, 1986 and October 12, 1985 (41st Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic shock Syndrome	Tuberculosis		Tularemia	Typhoid Fever	Typhus Fever (Tick borne) (RMSF)	Rabies, Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	20,545	21,153	6	17,185	16,690	116	236	664	4,324
NEW ENGLAND	369	464	-	557	570	1	13	12	8
Maine	15	13	-	34	40	-	-	-	-
N.H.	10	36	-	23	19	-	-	2	1
Vt.	8	6	-	15	7	-	-	-	2
Mass.	198	230	-	302	340	1	11	4	-
R.I.	18	14	-	40	42	-	-	3	3
Conn.	120	165	-	143	122	-	2	3	2
MID ATLANTIC	2,943	2,865	-	3,441	3,045	1	21	31	544
Upstate N.Y.	150	212	-	490	532	-	4	19	71
N.Y. City	1,669	1,758	-	1,811	1,462	-	9	5	-
N.J.	515	547	-	589	413	1	7	2	16
Pa.	609	348	-	551	638	-	1	5	457
E.N. CENTRAL	726	806	1	2,086	2,057	-	21	54	118
Ohio	101	115	1	364	353	-	7	48	14
Ind.	93	71	-	230	251	-	2	-	17
Ill.	351	381	-	877	911	-	3	2	34
Mich.	139	187	-	518	426	-	7	4	23
Wis.	42	52	-	97	116	-	2	-	30
W.N. CENTRAL	165	177	2	516	464	34	8	46	677
Minn.	28	37	1	120	99	-	1	1	98
Iowa	6	17	-	42	49	1	-	1	154
Mo.	89	92	1	258	224	26	6	23	66
N. Dak.	3	2	-	6	9	-	-	1	138
S. Dak.	7	5	-	23	25	2	-	6	141
Nebr.	11	7	-	12	13	1	-	5	28
Kans.	21	17	-	55	45	4	1	9	52
S. ATLANTIC	6,268	6,191	2	3,376	3,388	9	39	307	1,041
Del.	51	30	-	36	34	-	1	1	1
Md.	367	373	-	241	279	2	14	28	508
D.C.	245	271	1	116	132	1	4	-	28
Va.	283	239	-	278	311	2	8	45	158
W. Va.	18	20	-	97	89	-	3	8	38
N.C.	405	539	1	464	427	1	4	117	9
S.C.	540	654	-	432	421	-	-	70	56
Ga.	1,188	1,091	-	575	573	3	-	36	162
Fla.	3,171	2,974	-	1,137	1,122	-	5	2	81
E.S. CENTRAL	1,410	1,621	-	1,532	1,450	9	3	91	292
Ky.	60	54	-	344	345	3	-	20	80
Tenn.	495	497	-	452	422	5	1	40	109
Ala.	428	513	-	480	439	1	1	18	101
Miss.	427	557	-	256	244	-	1	13	2
W.S. CENTRAL	4,132	4,865	-	2,151	2,101	53	20	114	612
Ark.	187	264	-	291	221	37	-	9	138
La.	712	857	-	346	303	1	1	-	18
Okla.	103	149	-	205	211	10	1	89	55
Tex.	3,130	3,595	-	1,309	1,366	5	18	16	401
MOUNTAIN	462	563	-	411	430	7	15	8	581
Mont.	6	6	-	24	46	1	1	4	186
Idaho	13	5	-	20	22	-	-	-	8
Wyo.	2	7	-	-	5	-	-	1	243
Colo.	107	143	-	34	53	3	1	3	29
N. Mex.	54	106	-	80	73	1	1	-	6
Ariz.	195	251	-	194	192	-	8	-	93
Utah	15	8	-	29	12	1	3	-	6
Nev.	70	37	-	30	27	1	1	-	10
PACIFIC	4,070	3,601	1	3,115	3,185	2	96	1	451
Wash.	110	90	1	163	185	-	3	-	5
Oreg.	91	84	-	107	107	-	-	-	-
Calif.	3,842	3,372	U	2,665	2,662	1	88	1	438
Alaska	1	2	-	41	81	1	1	-	8
Hawaii	26	53	-	139	150	-	4	-	-
Guam	1	2	-	34	35	-	1	-	-
P.R.	716	578	-	281	293	-	5	-	41
V.I.	1	3	-	1	1	-	-	-	-
Pac. Trust Terr.	213	100	-	58	61	-	46	-	-
Amer. Samoa	-	-	-	5	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending October 11, 1986 (41st Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	623	432	130	41	5	15	42
Boston Mass	166	95	41	16	3	11	18
Bridgeport Conn	38	27	9	2	-	-	2
Cambridge Mass	27	20	5	-	2	-	1
Fall River Mass	28	20	6	1	-	1	-
Hartford Conn	60	36	18	6	-	-	1
Lowell Mass	25	13	11	1	-	-	-
Lynn Mass	17	16	1	-	-	-	1
New Bedford Mass	18	15	2	1	-	-	1
New Haven Conn	41	31	7	2	-	1	2
Providence R I	51	40	11	-	-	-	4
Somerville Mass	6	5	1	-	-	-	1
Springfield Mass	49	35	6	7	-	1	3
Waterbury Conn	34	26	4	3	-	1	2
Worcester Mass	63	53	8	2	-	-	6
MID ATLANTIC	2,461	1,599	505	215	68	74	91
Albany N Y	49	31	9	4	-	5	1
Allentown Pa	21	17	2	2	-	-	2
Buffalo N Y	94	59	26	7	1	1	6
Camden N J	35	26	7	-	1	1	1
Elizabeth N J	29	23	4	1	-	1	2
Erie Pa †	26	17	7	2	-	-	2
Jersey City N J	60	37	13	4	2	4	2
N Y City N Y	1,271	819	256	118	37	41	34
Newark N J	92	42	22	21	4	3	3
Paterson N J	25	14	6	3	1	1	1
Philadelphia Pa	299	196	66	20	8	9	24
Pittsburgh Pa †	46	32	7	3	4	-	2
Reading Pa	38	30	3	3	-	2	2
Rochester N Y	130	86	23	7	9	5	3
Schenectady N Y	29	25	2	2	-	-	-
Scranton Pa †	33	28	4	-	1	-	-
Syracuse N Y	90	56	25	8	-	1	3
Trenton N J	48	31	12	5	-	-	-
Utica N Y	20	12	6	2	-	-	2
Yonkers N Y	26	18	5	3	-	-	1
E N CENTRAL	2,250	1,450	520	148	62	70	99
Akron Ohio	61	42	14	2	2	1	-
Canton Ohio	36	25	10	1	-	-	4
Chicago Ill §	564	362	126	45	10	22	16
Cincinnati Ohio	141	82	39	9	7	4	16
Cleveland Ohio	145	95	34	8	5	3	2
Columbus Ohio	134	76	36	10	5	7	11
Dayton Ohio	109	65	33	7	1	3	4
Detroit Mich	262	156	59	20	15	12	5
Evansville Ind	43	30	8	2	2	1	2
Fort Wayne Ind	59	41	12	3	-	3	1
Gary Ind	20	11	6	2	1	-	-
Grand Rapids Mich	36	25	8	1	1	1	2
Indianapolis Ind	173	114	40	9	5	5	6
Madison Wis	54	37	9	7	-	1	2
Milwaukee Wis	148	108	27	9	3	1	7
Peoria Ill	48	30	10	3	2	3	5
Rockford Ill	40	28	7	3	1	1	6
South Bend Ind	48	33	13	1	-	1	3
Toledo Ohio	76	52	18	3	2	1	7
Youngstown Ohio	53	38	12	3	-	-	-
W N CENTRAL	815	575	154	40	23	23	29
Des Moines Iowa	63	41	15	2	4	1	4
Duluth Minn	32	25	5	1	-	1	1
Kansas City Kans	38	22	9	4	2	1	-
Kansas City Mo	106	71	24	5	1	5	7
Lincoln Nebr	51	38	9	3	-	3	2
Minneapolis Minn	173	121	32	8	6	6	2
Omaha Nebr	83	59	16	4	4	-	4
St Louis Mo	133	99	20	7	5	2	2
St Paul Minn	65	54	7	1	1	2	1
Wichita Kans	71	47	17	5	-	2	6
S ATLANTIC	1,421	863	316	133	51	58	71
Atlanta Ga	153	93	30	16	8	6	-
Baltimore Md	366	232	85	25	10	14	16
Charlotte N C	76	47	17	8	4	-	5
Jacksonville Fla	132	78	34	8	8	4	10
Miami Fla	135	69	29	24	7	6	3
Norfolk Va	62	35	13	7	3	4	6
Richmond Va	95	50	23	12	2	8	9
Savannah Ga	39	24	8	4	1	2	4
St Petersburg Fla	100	82	11	4	1	2	5
Tampa Fla	58	39	14	4	1	-	7
Washington D C	182	98	47	20	5	12	6
Wilmington Del	23	16	5	1	1	-	-
E S CENTRAL	696	459	150	42	22	23	22
Birmingham Ala	104	60	27	9	2	6	-
Chattanooga Tenn	58	43	10	2	1	2	2
Knoxville Tenn	76	44	18	7	5	2	1
Louisville Ky	97	62	20	5	6	4	3
Memphis Tenn	155	106	35	10	4	-	7
Mobile Ala	63	47	11	4	-	1	5
Montgomery Ala	44	33	9	2	-	-	3
Nashville Tenn	99	64	20	3	4	8	1
W S CENTRAL	1,247	733	305	123	41	43	54
Austin Tex	50	33	8	8	-	1	2
Baton Rouge La	44	28	13	1	2	-	2
Corpus Christi Tex	50	34	7	3	1	5	5
Dallas Tex	201	102	43	34	10	12	8
El Paso Tex	80	50	19	5	3	2	5
Fort Worth Tex	83	56	16	7	2	2	6
Houston Tex	305	154	99	29	12	11	7
Little Rock Ark	44	30	10	2	1	1	2
New Orleans La	109	66	27	12	1	3	-
San Antonio Tex	165	97	39	18	7	3	9
Shreveport La	36	29	4	1	-	2	3
Tulsa Okla	80	54	20	3	2	1	5
MOUNTAIN	597	356	131	51	25	34	25
Albuquerque N Mex	91	50	26	9	4	2	-
Colo Springs Colo	36	26	4	2	1	3	4
Denver Colo	104	59	18	9	5	13	3
Las Vegas Nev	91	52	27	7	4	1	4
Ogden Utah	21	14	3	2	-	2	5
Phoenix Ariz	91	45	24	13	2	7	2
Pueblo Colo	13	11	2	-	-	-	3
Salt Lake City Utah	39	21	8	4	2	4	-
Tucson Ariz	111	78	19	5	7	2	4
PACIFIC	1,924	1,216	417	172	72	43	108
Berkeley Calif	24	19	5	-	-	-	1
Fresno Calif	76	48	21	1	2	4	9
Glendale Calif §	25	20	3	2	-	-	1
Honolulu Hawaii	79	55	17	2	1	4	10
Long Beach Calif	78	57	14	2	2	3	8
Los Angeles Calif §	557	336	116	71	23	7	17
Oakland Calif	77	48	15	6	7	1	3
Pasadena Calif	33	23	6	2	1	1	-
Portland Oreg	117	76	28	7	2	4	2
Sacramento Calif	145	93	28	11	10	3	16
San Diego Calif	125	75	26	14	6	4	12
San Francisco Calif	154	79	41	26	2	6	5
San Jose Calif	188	121	44	14	6	3	17
Seattle Wash	135	95	27	7	5	1	2
Spokane Wash	70	47	14	5	4	-	3
Tacoma Wash	41	24	12	2	1	2	2
TOTAL	12,034††	7,683	2,628	965	369	383	541

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*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza.

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages.

§ Data not available. Figures are estimates based on average of past 4 weeks.

Epidemiologic Notes and Reports

Update: *Aedes albopictus* Infestation — United States

In August 1985, an infestation of *Aedes albopictus* ("Asian Tiger Mosquito"), an exotic mosquito known to transmit epidemic dengue fever in its native Asia, was discovered in Harris County, Texas. *Ae. albopictus* has been shown in the laboratory to be capable of efficiently transmitting dengue and several other viruses (including California [LaCrosse] encephalitis virus) that can infect humans and are indigenous to the United States. In the spring of 1986, efforts were begun to determine the distribution of this mosquito vector in the United States. The most recent survey for *Ae. albopictus* breeding was conducted September 15-29 in Ohio, Indiana, Illinois, Missouri, Kentucky, and Arkansas. Sites inspected were the business premises of tire dealers and re-treaders, because the mosquito commonly breeds in standing water found in tires stored outdoors on their sides. *Ae. albopictus* larvae were found in at least one location in two of 10 counties surveyed in Illinois, two of 16 in Indiana, three of 11 in Missouri, and one of seven in Arkansas; none were found in the Kentucky survey. In early September, a single positive site had been discovered by the Ohio Department of Health in Darke County; no further breeding was found during surveys in five other Ohio counties. Oviposition trap surveillance also has provided evidence for an infestation in San Antonio, Texas. Figure 1 shows the present distribution of *Ae. albopictus*-positive counties.

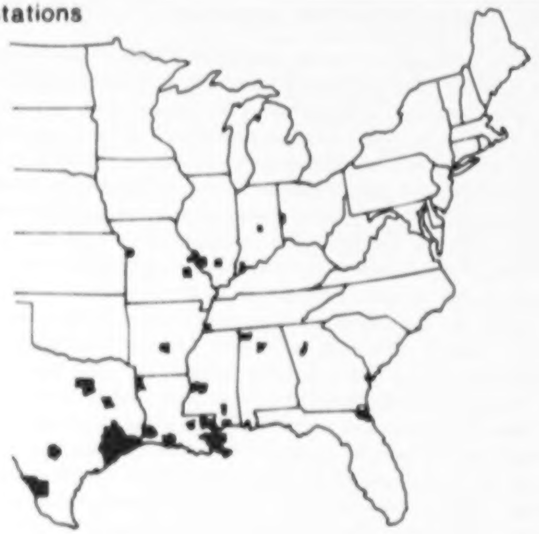
To determine the mode of introduction and to characterize the risk of further introduction, CDC has conducted inspections of used auto and truck tires entering United States ports from Asia, the source of several million used tires each year. For example, in 1985, a total of 3.2 million used tires were imported, of which 2.8 million came from Asian countries with indigenous *Ae. albopictus* populations, including 890,000 from Japan.

On October 6-7, 1986, inspectors checked 2,613 tires in nine cargo containers originating in Japan and off-loaded in Seattle, Washington; *Ae. albopictus* larvae were found in 11 tires in two of the cargo containers. The two positive containers had a higher proportion of tires (91%) holding water than did the negative containers (17%). Both positive containers were shipped by the same exporter in Japan. The positive containers were fumigated with methyl bromide to kill larvae and ova. Although tire shipments originating in Japan have been inspected since June, the October shipment was the first one found to be infested.

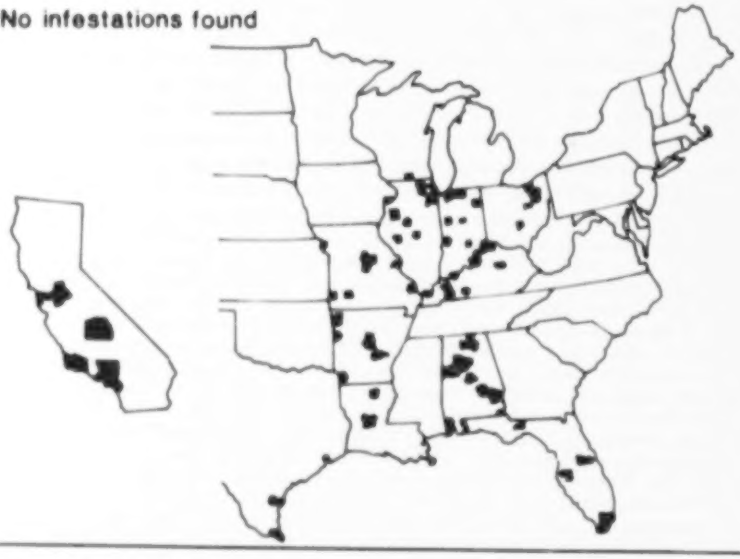
Reported by E Roberts, Barberton Health Dept, D Somers, Cuyahoga County Health Dept, K Mizer, Stark County Health Dept, M Parsons, R Berry, E Peterson, Ohio State Health Dept; G Craig, W Hawley, K Rai, P Grimstad, Notre Dame University, C Dulla, S Brewer, J Erwin, Marion County Health Dept, D Harvey, Clark County Health Dept, C Mayfield, M Galbraith, Bartholomew County Health Dept, M Sinsko, PhD, B Foster, E McDonald, V Dunn, Indiana State Board of Health; J Nielsen, Louisville-Jefferson County Health Dept, G Moorer, Lexington-Fayette County Health Dept, C Gayle, Kentucky Dept of Agriculture; H Meyer, City of St. Louis Health Division, W Willey, W Kottkamp, St. Louis County Health Dept, H Bengsch, J Boles, Springfield-Greene County Health Dept, J Hounschell, City of Joplin Dept of Health and Welfare, C Lansford, Jefferson City Dept of Planning and Code Enforcement, C Sanders, City of Columbia-Boone County Dept of Health, A Thomas, Kansas City Health Dept, F Unnewehr, R Tanner, R Field, R Larkam, Missouri State Health Dept; H Dominic, L Haramis, PhD, Illinois Dept of Public Health; E Swearingen, Jr, Ft Smith-Sebastian County Dept of Public Health; D Harmon, Area 1 Headquarters, Arkansas State Health Dept; M Meisch, PhD, D Bassi, A Weathersbee, M Riggs, Dept of Entomology, University of Arkansas, D Purifoy, Miller County Health Dept, M Townsend, Jefferson County Health Unit, H Spatz, Faulkner County Health Unit, D Edwards, T Reid, North Little Rock Health Dept, W Teer, R Neill, K Free, Arkansas State Health Dept; Div of Vector-Borne Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: The recent surveys described above confirm the presence of *Ae. albopictus* in northern areas of the Ohio-Mississippi Valley, an area in which California (LaCrosse)

FIGURE 1. Counties* with and without *Aedes albopictus* infestation – United States, September 30, 1986



A. Infestations



B. No infestations found

*Where one or more tire-related businesses were inspected.

Aedes albopictus *Infestation – Continued*

encephalitis is known to be endemic. Because laboratory studies have shown that *Ae. albopictus* is capable of entering diapause (*1*), it is expected that these populations will successfully overwinter and resume breeding activity in the spring. In the summer of 1987, investigations should be conducted to determine the role of *Ae. albopictus* in transmission of California-group viruses—especially LaCrosse encephalitis—in the Central United States.

The evidence suggests that the *Ae. albopictus* infestation of the northern United States has occurred relatively recently, since only seven (13%) of 53 counties sampled were infested in Ohio, Indiana, Illinois, Kentucky, Missouri, and Wisconsin, compared with 31 (89%) of 35 counties sampled in the area of the United States already known to be infested by this mosquito (Texas, Louisiana, and Mississippi). Efforts to control/prevent the spread of *Ae. albopictus* in the northern states will become an even greater concern as mosquito breeding resumes next spring.

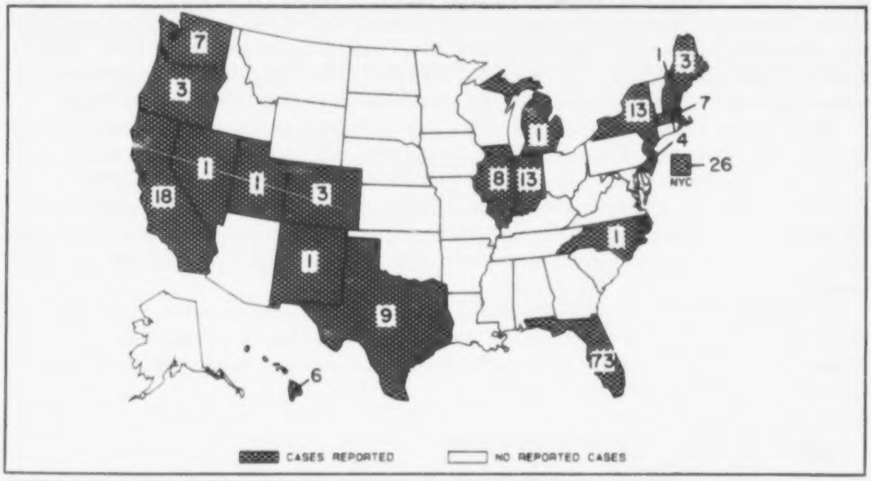
The finding of infested used tires in Washington State indicates a need for further evaluation of the hypothesis that importation of tires from Asia represents a possible source of the original infestation in the United States. CDC is currently reviewing options for preventing further introduction of *Ae. albopictus*.

Reference

1. Craig GB. University of Notre Dame. Personal communication.

NOTE: As of October 1, 1986, the text of each week's issue of the *Morbidity and Mortality Weekly Report* (*MMWR*), which has been available through CDC's Rapid Information Transmittal System (RITS), will no longer be available on that system. Persons who wish to obtain the *MMWR* text electronically must do so through Medical Information Network (MINET). For additional information about MINET, contact Ms. Joan Kennedy, Information Resources Management Office, Centers for Disease Control, Atlanta, GA 30333; phone: (404) 329-3396, FTS 236-3396.

FIGURE I. Reported measles cases — United States, weeks 37-40, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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CENTERS FOR DISEASE CONTROL

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MMWR

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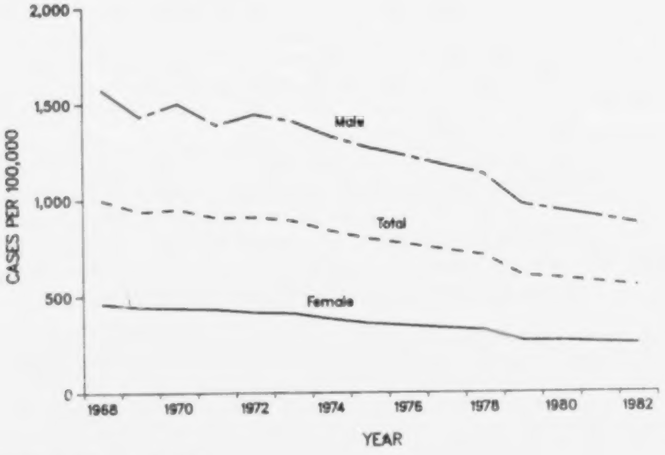
Epidemiologic Notes and Reports

Years of Life Lost from Cardiovascular Disease

Cardiovascular diseases (CVD) (ICD 390-398, 402, 404-429) remain the leading cause of death in the United States, despite a persistent decline in the mortality rate of about 2% per year since 1968 (see Table V). CVD ranks third in years of potential life lost (YPLL) prior to age 65, a measure that generally highlights death in the early years. This ranking reflects the large number of people who die prematurely from ischemic heart disease (IHD) (ICD 410-414). Other categories of CVD accounting for YPLL are acute rheumatic fever (ICD 390-392) chronic rheumatic heart disease (ICD 393-398), hypertensive disease (ICD 401-405), diseases of pulmonary circulation (ICD 415-417), and other forms of heart disease (ICD 420-429).

Total YPLL, as well as YPLL for men and women, has continued to decline since 1968 (Figure 1). In 1983, the most recent year for which complete age-, sex-, race-, and cause-specific mortality data are available, CVD accounted for 1,620,219 YPLL before age 65; this represents 16% of YPLL for all causes of death in 1983 (*1*). IHD accounted for 1,001,875

FIGURE 1. Rate* of years of potential life lost (YPLL) from ischemic heart disease (IHD), by year — United States, 1968-1982



*Adjusted to 1970 U.S. population

E 20.7009:

Cardiovascular Disease – Continued

YPLL (62% of all CVD). Thus, IHD alone would rank as the fourth highest cause of YPLL behind unintentional injuries, malignant neoplasms, and suicide.

In 1983, white males continued to account for a majority (67%) of YPLL from IHD, followed by white females (18%), black males (9%), black females (5%), and all others (1%). However, the crude rates of YPLL indicate similar risks for IHD mortality among white and black males (691 and 651 YPLL/100,000, respectively). The rate for black females was 1.75 times higher than that for white females (315 vs. 180 YPLL/100,000). Rates for males and females of other races were substantially lower than those for their white counterparts.

Reported by Behavioral Epidemiology and Evaluation Br, Div of Health Education, Center for Health Promotion and Education, Div of Chronic Disease Control, Div of Environmental Health Laboratory Sciences, Center for Environmental Health, CDC.

Editorial Note: Because data on trends for specific risk factors for IHD are not available, risk factor prevalences cannot be correlated with YPLL rates for IHD. However, changes in lifestyle factors have been related to the decline in total mortality from IHD (*2*). At present, prevention programs place considerable emphasis on smoking and hypertension. Two other risk factors—elevated cholesterol levels and low levels of physical activity—have received increasing attention in recent years, and are emerging as important targets for further control efforts.

Accurate laboratory measurement of serum cholesterol will be important in monitoring the effect of intervention programs. Substantial variation currently exists in the precision of routine cholesterol measurements. The National Committee on Clinical Laboratory Standards is collaborating with the National Heart, Lung and Blood Institute and with the Centers for Disease Control to conduct the National Cholesterol Standardization Program. This effort is a vital component of the National Cholesterol Education Program (*3*), which has as its overall goals the effective identification of, monitoring for, and treatment of persons with cholesterol abnormalities as cardiovascular risk factors.

In many studies, a sedentary lifestyle has been reported as an independent risk factor for IHD. Moreover, habitual physical activity is considered to be associated with a reduced risk of IHD (*4*). The effect of vigorous physical activity on IHD appears to be independent of the effects of other risk factors for IHD such as smoking and hypertension. There is also evidence for some important interactive effects between physical activity and other risk factors, especially hypertension and obesity. Animal models appear to confirm these findings and have demonstrated that physical activity may reduce IHD by delaying the development of atherosclerosis.

Current evidence supports policies that promote physical activity for the general population. However, important questions still remain concerning the intensity, duration, and frequency of physical activity required to confer protection. The *1990 Objectives for the Nation* recommend that by 1990, at least 60% of adults ages 18-65 years should participate in regular physical activity sufficient to produce moderate to high cardiorespiratory fitness (*6*). As of 1985, only 10%-20% of U.S. adults had attained that level of activity (*5*).

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Acquired Immunodeficiency Syndrome (AIDS) among Blacks and Hispanics — United States

In the period June 1, 1981-September 8, 1986, physicians and health departments in the United States notified CDC of 24,576 patients meeting the AIDS case definition for national reporting (*1-3*). Of these, 6,192 (25%) were black and 3,488 (14%) were Hispanic, whereas these groups represent only 12% and 6%, respectively, of the U.S. population (*4*). The proportion of cases by racial/ethnic group has remained relatively constant over time (Figure 2), but the number of reported cases of AIDS among persons of all racial and ethnic backgrounds continues to rise (Figure 3).

Adult Patients. The race and ethnicity was known for 24,102 adult AIDS patients ≥15 years of age*; 14,554 (60%) of these patients were non-Hispanic whites; 5,988 (25%), blacks; 3,411 (14%), Hispanics; and 149 (< 1%), members of other racial/ethnic groups. The overall cumulative incidences† for black and Hispanic adults were 3.1 and 3.4 times, respectively, that for whites (Table 1).

Black and Hispanic adults with AIDS were more likely than white adult AIDS patients to reside in New York, New Jersey, or Florida 52% and 65% of the black and Hispanic patients, respectively, resided in these three states, as did 33% of white patients. Cumulative incidences in these states for blacks and Hispanics were from 2.5 to 9.0 times those for whites. Of the black and Hispanic patients from New York and New Jersey, approximately half were intravenous (IV) drug abusers. Of the black patients from Florida, 40% were born in Haiti.

Among men, blacks and Hispanics accounted for 23% and 14%, respectively, of the 22,468 male AIDS patients. However, among women, blacks and Hispanics accounted for 51% and 21%, respectively, of the 1,634 female patients. Cumulative incidences for black and Hispanic women were 13.3 and 11.1 times, respectively, the incidence for white women.

The distribution of AIDS cases by race/ethnicity differed by recognized transmission categories for AIDS (Table 2). Homosexual or bisexual men who had AIDS and patients who acquired AIDS from blood or blood products were predominately white, whereas patients with a history of IV drug abuse or heterosexual contact with persons at increased risk for acquiring AIDS, and persons with no identified mode of transmission were predominately black or Hispanic. The proportion of blacks or Hispanics with AIDS was relatively high (in terms of their proportions in the overall U.S. population) in all transmission categories with the exception of hemophilia.

The racial/ethnic distribution of homosexual/bisexual patients differed from that of heterosexual patients. Among homosexual/bisexual male AIDS patients, 16% were black; 11%, Hispanic; and 73%, white. Among heterosexual AIDS patients in all other transmission categories, 50% were black; 25%, Hispanic; and 25%, white.

Pediatric Patients. Of the 350 AIDS patients who were children (i.e., < 15 years of age) and whose race/ethnicity was known, 204 (58%) were black and 77 (22%) were Hispanic. The overall cumulative incidences for black and Hispanic children were 15.1 and 9.1 times, respectively, the incidence for white children (Table 1).

As with black and Hispanic adult AIDS patients, black and Hispanic children with AIDS were more likely than white children with AIDS to reside in New York, New Jersey, or Florida (Table 1). Of the black and Hispanic children with AIDS, 73% and 70%, respectively, lived in New York, New Jersey, or Florida. Of the 68 white children with AIDS, 40% also lived in one of those three states.

The distribution of pediatric AIDS cases by race/ethnicity varied by transmission category.

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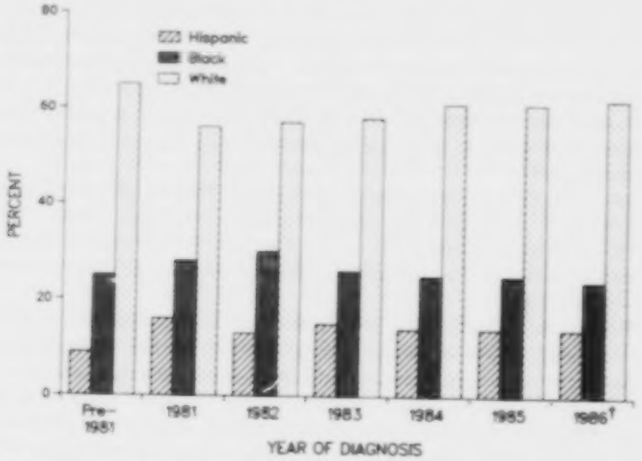
*Because U.S. census data for the Hispanic population are only available for 5-year age groups, the adult patients have been defined as those ages ≥15 years and pediatric as those < 15 years of age.

†Defined as number of cases/million population of that racial/ethnic group.

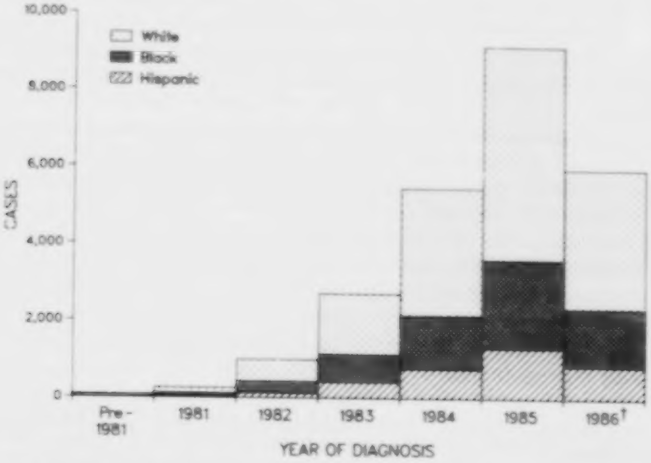
AIDS — Continued

FIGURE 2. Percentage of acquired immunodeficiency syndrome (AIDS) cases,* by year of diagnosis and race — United States, pre-1981-1986



*Reported as of September 8, 1986, and excludes 153 AIDS patients (<) of other race.
†Incomplete year.

FIGURE 3. Acquired immunodeficiency syndrome (AIDS) cases,* by year of diagnosis and race — United States, pre-1981-1986



*Reported as of September 8, 1986, and excludes 153 AIDS patients (< 1%) of other race.
†Incomplete year.

AIDS – Continued

Table 1. Reported cases and cumulative incidence* of AIDS, by state of residence and demographic group, as of September 8, 1986

	Demographic group (age and race/ethnicity)										
	Adults (≥ 15 yrs.)				Adult	Children (< 15 yrs.)				Children	
Location	White†	Black†	Hispanic	Other†	total	White†	Black†	Hispanic	Other†	total	Total
California											
number	4,402	525	531	65	5,523	8	7	7	0	22	**5,545**
(cum. inc.)	(340.1)	(399.8)	(173.2)	(54.5)	(298.3)	(2.8)	(14.9)	(4.7)	(0.0)	(4.3)	**(234.3)**
Florida											
number	761	599	208	2	1,570	5	38	2	0	45	**1,615**
(cum. inc.)	(122.7)	(655.4)	(305.4)	(27.8)	(199.5)	(3.9)	(94.1)	(11.3)	(0.0)	(24.0)	**(165.7)**
New Jersey											
number	559	695	187	4	1,445	12	31	8	0	51	**1,496**
(cum. inc.)	(118.9)	(1,074.2)	(551.6)	(41.2)	(249.7)	(10.7)	(116.8)	(52.3)	(0.0)	(32.3)	**(203.2)**
New York											
number	3,531	2,427	1,836	35	7,829	10	80	44	0	134	**7,963**
(cum. inc.)	(331.4)	(1,439.5)	(1,573.3)	(108.7)	(566.0)	(4.0)	(130.5)	(89.4)	(0.0)	(36.0)	**(453.6)**
Other states											
number	5,301	1,742	649	43	7,735	33	48	16	1	98	**7,833**
(cum. inc.)	(49.0)	(123.8)	(138.6)	(18.3)	(59.8)	(1.1)	(8.4)	(6.7)	(1.0)	(2.5)	**(46.6)**
Total											
number	**14,554**	**5,988**	**3,411**	**149**	**24,102**	**68**	**204**	**77**	**1**	**360**	**24,452**
(cum. inc.)	**(102.0)**	**(321.5)**	**(343.4)**	**(36.9)**	**(137.5)**	**(1.8)**	**(27.3)**	**(16.5)**	**(0.6)**	**(6.8)**	**(107.9)**

*The cumulative incidence (shown in parentheses) is the cumulative number of reported AIDS cases/million population/individual demographic group (based on data from the 1980 census of the population of the United States).

†Non-Hispanic.

AIDS – Continued

Ninety percent of the children with perinatally acquired AIDS compared with 42% of the children with hemophilia- or transfusion-associated AIDS were black or Hispanic (Table 3). The observation that children with perinatally acquired AIDS (mother-to-infant transmission) were predominately black or Hispanic (Table 3) is consistent with the high proportion (75%) of heterosexual adults who are black or Hispanic. As with adults, the proportion of pediatric patients who were black or Hispanic was highest in the transmission categories associated with IV drug abuse by at least one of the parents (Table 3).

Reported by AIDS Program, Center for Infectious Diseases, CDC.

Editorial Note: The incidence of AIDS is rising for all racial/ethnic groups, and in all geographic regions of the country. However, cumulative incidences of AIDS among blacks and Hispanics are over 3 times the rate for whites. Seroprevalence studies of military recruit applicants and of potential blood donors also indicate a higher prevalence of infection with human T-lymphotropic virus type III/lymphadenopathy-associated virus[¶] (HTLV-III/LAV)

[¶] The AIDS virus has been variously termed human T-lymphotropic virus type III (HTLV-III), lymphadenopathy-associated virus (LAV), AIDS-associated retrovirus (ARV), or human immunodeficiency virus (HIV). The designation "human immunodeficiency virus" (HIV) has recently been accepted by a subcommittee of the International Committee for the Taxonomy of Viruses as the appropriate name for the retrovirus that has been implicated as the causative agent of AIDS (*5*).

(Continued on page 663)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	42nd Week Ending			Cumulative, 42nd Week Ending		
	Oct. 18, 1986	Oct. 19, 1985	Median 1981-1985	Oct. 18, 1986	Oct. 19, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	377	163	N	10,474	6,433	N
Aseptic meningitis	231	299	299	8,051	8,153	7,833
Encephalitis: Primary (arthropod-borne & unspec.)	27	41	44	961	1,043	1,240
Post-infectious	-	-	-	84	106	77
Gonorrhea: Civilian	17,881	17,095	19,846	713,742	716,749	727,998
Military	446	577	501	13,496	17,105	19,736
Hepatitis: Type A	448	496	496	17,882	18,073	18,073
Type B	487	550	506	20,591	20,874	19,196
Non A, Non B	64	73	N	2,792	3,327	N
Unspecified	66	110	174	3,611	4,623	5,912
Legionellosis	23	17	N	584	603	N
Leprosy	1	-	4	201	293	200
Malaria	26	22	22	900	847	847
Measles: Total*	25	17	17	5,625	2,574	2,385
Indigenous	24	17	N	5,345	2,147	N
Imported	1	-	N	280	427	N
Meningococcal infections: Total	32	40	43	1,993	1,934	2,220
Civilian	32	40	43	1,991	1,928	2,209
Military	-	-	-	2	6	11
Mumps	43	39	56	4,042	2,423	2,679
Pertussis	431	158	48	3,156	2,757	1,968
Rubella (German measles)	1	3	12	439	574	819
Syphilis (Primary & Secondary): Civilian	511	587	694	21,253	21,740	24,874
Military	2	2	7	132	141	316
Toxic Shock syndrome	5	9	N	280	310	N
Tuberculosis	329	406	460	17,595	17,096	18,826
Tularemia	7	2	4	123	152	228
Typhoid fever	5	9	21	251	312	326
Typhus fever, tick-borne (RMSF)	22	11	11	686	631	921
Rabies, animal	89	110	110	4,485	4,388	5,083

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis	27
Botulism: Foodborne	11	Plague	7
Infant	40	Poliomyelitis, Paralytic	1
Other	1	Psittacosis (Minn. 1)	78
Brucellosis (Fla. 1, Calif. 2)	67	Rabies, human	-
Cholera	2	Tetanus	55
Congenital rubella syndrome (NYC 1)	10	Trichinosis	30
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	37
Diphtheria	-		

*One of the 25 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending October 18, 1986 and October 19, 1985 (42nd Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis: Primary	Encephalitis: Post-infectious	Gonorrhea (Civilian)	Gonorrhea (Civilian)	Hepatitis (Viral), by type: A	Hepatitis (Viral), by type: B	Hepatitis (Viral), by type: NA,NB	Hepatitis (Viral), by type: Unspecified	Legionellosis	Leprosy
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	10474	231	961	84	713,742	716,749	448	467	64	66	23	201
NEW ENGLAND	432	8	23	3	18,932	18,335	11	32	1	4	-	7
Maine	17	3	-	-	708	932	-	4	-	-	-	-
N.H.	10	1	2	-	455	461	-	-	-	-	-	-
Vt	4	1	4	2	217	265	-	-	-	-	-	-
Mass	237	3	5	-	7,223	7,427	5	22	-	4	-	7
R.I.	28	-	-	-	1,458	1,477	-	-	-	-	-	-
Conn	136	-	12	1	8,871	7,773	6	6	1	-	-	-
MID ATLANTIC	3,825	36	93	7	121,141	104,336	16	44	5	7	-	14
Upstate N.Y.	384	7	33	4	14,688	14,203	3	6	-	-	-	1
N.Y. City	2,607	3	18	-	69,807	51,636	1	2	-	5	-	12
N.J.	585	18	10	-	15,622	15,861	3	16	2	1	-	-
Pa	249	8	32	3	21,024	22,636	9	20	3	1	-	1
E.N. CENTRAL	638	55	292	11	94,583	95,083	17	40	3	1	12	5
Ohio	131	28	111	3	24,249	25,283	9	17	3	1	2	-
Ind	59	4	73	3	10,153	10,222	3	5	-	-	10	-
Ill	300	-	42	4	23,447	23,002	-	-	-	-	-	4
Mich	116	23	45	1	29,853	27,207	5	18	-	-	-	1
Wis	32	-	21	-	6,881	9,349	-	-	-	-	-	-
W.N. CENTRAL	199	8	64	9	30,623	33,419	2	8	1	-	2	3
Minn	72	2	27	-	4,387	4,980	1	1	-	-	-	1
Iowa	15	-	20	-	3,103	3,563	-	-	-	-	-	-
Mo	69	3	1	-	15,512	16,097	1	6	-	-	-	-
N. Dak	2	-	3	-	284	234	-	-	-	-	-	-
S. Dak	2	3	11	-	638	649	-	1	-	-	2	-
Nebr	10	-	-	1	2,256	2,841	-	-	-	-	-	-
Kans	29	-	2	8	4,463	5,055	-	-	1	-	-	2
S. ATLANTIC	1,430	40	124	31	184,887	186,550	33	98	8	2	3	2
Del	20	2	6	-	3,070	3,589	1	1	1	-	-	-
Md	123	13	28	1	21,442	23,339	6	9	1	-	-	-
D.C.	170	-	-	1	13,658	12,635	1	1	-	1	-	-
Va	125	2	34	1	15,278	15,600	2	8	1	-	-	1
W. Va	7	3	38	-	1,827	2,145	1	3	-	-	1	-
N.C.	63	3	16	2	28,336	29,517	-	9	1	1	-	-
S.C.	36	-	-	-	16,076	17,799	2	20	-	-	1	-
Ga	198	9	-	1	30,762	36,933	3	24	-	-	1	-
Fla	688	8	2	25	54,438	44,993	17	23	4	-	-	1
E.S. CENTRAL	122	21	58	4	57,471	61,420	4	22	2	2	1	1
Ky	25	5	28	1	6,335	7,034	-	3	-	-	-	-
Tenn	59	8	7	1	21,948	23,489	2	12	1	2	-	-
Ala	23	7	22	2	16,690	18,441	2	4	1	-	1	1
Miss	16	1	1	-	12,498	12,456	-	3	-	-	-	-
W.S. CENTRAL	923	20	143	6	83,664	90,666	29	21	3	12	4	19
Ark	27	1	-	2	7,920	8,639	2	5	-	-	-	1
La	126	3	9	-	14,904	17,334	5	3	1	-	-	1
Okla	38	4	19	-	9,658	9,899	5	5	1	3	1	-
Tex	733	12	115	4	51,182	54,794	17	8	1	9	3	17
MOUNTAIN	275	4	29	1	21,209	22,411	72	48	7	5	-	11
Mont	4	-	1	1	567	607	4	-	1	-	-	-
Idaho	3	1	-	-	693	769	7	3	-	-	-	-
Wyo	4	-	2	-	453	523	-	2	1	-	-	-
Colo	132	1	4	-	5,450	6,522	3	10	1	2	-	3
N. Mex	21	1	3	-	2,256	2,513	20	4	-	-	-	-
Ariz	68	-	11	-	6,778	6,681	33	19	4	3	-	5
Utah	15	1	6	-	881	1,072	2	4	-	-	-	1
Nev	28	-	2	-	4,131	3,724	3	4	-	-	-	2
PACIFIC	2,630	39	135	12	101,232	104,549	264	156	34	33	1	139
Wash	140	1	11	-	7,425	8,090	34	25	3	7	-	17
Oreg	50	-	-	-	4,324	5,276	26	20	2	-	-	-
Calif	2,388	30	117	12	86,255	87,365	197	106	29	22	1	92
Alaska	12	-	6	-	2,190	2,422	7	5	-	4	-	-
Hawaii	40	8	1	-	1,038	1,406	-	-	-	-	-	30
Guam	-	-	-	-	167	164	4	1	-	5	-	1
P.R.	77	3	5	1	1,934	2,587	1	-	-	1	-	7
V.I.	3	U	-	-	199	351	U	U	U	U	U	-
Pac. Trust Terr	-	-	-	-	400	706	10	-	-	-	-	43
Amer Samoa	-	-	-	-	42	-	-	-	-	-	-	2

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending October 18, 1986 and October 19, 1985 (42nd Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	900	24	5,346	1	280	2,574	1,993	43	4,042	431	3,156	2,757	1	439	574
NEW ENGLAND	59	-	82	-	15	126	141	1	57	5	137	183	-	9	12
Maine	2	-	12	-	1	1	25	-	-	-	2	9	-	-	-
N.H.	3	-	43	-	-	-	6	-	13	2	70	104	-	1	2
Vt.	2	-	-	-	-	-	17	-	4	-	3	3	-	1	-
Mass.	31	-	24	-	12	118	34	1	10	3	32	44	-	4	6
R.I.	7	-	2	-	-	-	19	-	9	-	6	16	-	2	-
Conn.	14	-	1	-	2	7	40	-	21	-	24	7	-	1	4
MID ATLANTIC	117	1	1,686	-	33	217	323	2	177	-	173	182	-	34	221
Upstate N.Y.	44	-	77	-	23	85	107	1	59	-	109	86	-	26	17
N.Y. City	29	1	682	-	4	70	68	-	29	-	10	23	-	5	179
N.J.	20	-	905	-	4	28	30	1	44	-	17	10	-	3	11
Pa.	24	-	22	-	2	34	118	-	45	-	37	63	-	-	14
E.N. CENTRAL	56	-	1,061	-	28	535	272	15	2,740	2	322	662	1	45	32
Ohio	17	-	-	-	10	60	109	7	116	1	146	89	-	1	-
Ind.	2	-	25	-	11	57	28	-	34	-	26	188	-	-	1
Ill.	15	-	689	-	4	299	69	8	2,094	-	32	62	1	34	15
Mich.	18	-	59	-	-	60	57	-	275	1	34	44	-	8	15
Wis.	4	-	278	-	3	59	9	-	221	-	84	279	-	2	1
W.N. CENTRAL	29	-	322	-	17	11	94	5	107	403	899	163	-	13	19
Minn.	8	-	45	-	4	6	18	-	1	-	49	62	-	1	2
Iowa	1	-	133	-	1	-	11	2	32	-	19	28	-	1	1
Mo.	11	-	25	-	6	2	33	-	17	-	18	29	-	1	7
N. Dak.	-	-	25	-	1	2	-	-	3	-	5	9	-	1	2
S. Dak.	2	-	-	-	-	-	5	-	1	-	14	3	-	-	-
Nebr.	4	-	-	-	-	-	10	-	-	-	7	8	-	-	-
Kans.	3	-	94	-	5	1	17	3	53	403	787	24	-	9	7
S. ATLANTIC	106	16	663	-	56	319	355	2	201	6	701	469	-	13	51
Del.	1	-	1	-	-	-	4	-	-	-	227	1	-	-	1
Md.	14	-	28	-	9	107	44	-	18	-	161	269	-	-	6
D.C.	2	-	-	-	2	27	5	-	-	-	-	-	-	-	-
Va.	27	-	38	-	24	28	62	1	38	-	36	17	-	-	2
W. Va.	4	-	2	-	-	33	3	1	45	-	23	4	-	-	9
N.C.	5	-	3	-	1	9	58	-	20	-	66	27	-	-	1
S.C.	6	-	274	-	-	3	33	-	12	-	18	2	-	-	3
Ga.	10	-	79	-	14	8	53	-	28	6	128	89	-	-	-
Fla.	37	16	242	-	6	104	93	-	40	-	42	60	-	13	29
E.S. CENTRAL	18	-	58	-	9	7	107	7	42	-	47	50	-	4	3
Ky.	5	-	-	-	6	5	24	-	6	-	5	8	-	4	3
Tenn.	1	-	55	-	1	1	37	7	31	-	16	20	-	-	-
Ala.	8	-	1	-	1	-	33	-	4	-	25	18	-	-	-
Miss.	4	-	2	-	1	1	13	-	1	-	1	4	-	-	-
W.S. CENTRAL	92	1	605	-	38	433	182	3	184	3	220	428	-	63	36
Ark.	1	-	276	-	2	-	27	-	7	2	17	14	-	-	1
La.	17	-	4	-	-	42	25	-	3	-	13	13	-	-	-
Okla.	10	-	37	-	2	1	29	N	N	1	107	154	-	-	1
Tex.	64	1	288	-	34	390	101	3	174	-	83	247	-	63	34
MOUNTAIN	31	-	302	-	29	539	98	3	233	2	237	194	-	23	6
Mont.	-	-	-	-	8	137	10	-	5	-	14	9	-	2	-
Idaho	1	-	1	-		137	4	-	8	1	41	15	-	-	2
Wyo.	-	-	-	-	-	5	2	-	-	-	4	-	-	1	-
Colo.	8	-	2	-	8	13	16	1	13	1	63	72	-	1	-
N. Mex.	5	-	33	-	7	6	9	N	N	-	20	11	-	-	2
Ariz.	11	-	252	-	6	241	21	-	186	-	56	38	-	2	1
Utah	3	-	12	-	-	-	10	-	13	-	35	49	-	14	-
Nev.	3	-	2	-	-	-	26	2	8	-	4	-	-	3	1
PACIFIC	392	6	576	1	55	387	421	5	301	10	420	406	-	235	194
Wash.	26	-	137	-	27	113	58	-	10	1	139	71	-	16	14
Oreg.	15	-	7	-	4	5	31	N	N	-	12	43	-	3	1
Calif.	350	6	405	1†	23	245	311	5	265	9	253	246	-	211	130
Alaska	-	-	-	-	-	-	12	-	6	-	2	29	-	-	1
Hawaii	1	-	27	-	1	24	9	-	20	-	14	17	-	5	48
Guam	1	-	4	-	1	11	-	-	4	-	-	-	1	4	2
P.R.	4	-	36	-	-	83	3	-	32	2	17	11	1	61	27
V.I.	-	U	-	U	-	10	-	U	15	U	-	-	U	-	-
Pac. Trust Terr.	-	-	-	-	-	-	1	-	11	-	-	-	-	2	-
Amer. Samoa	-	-	2	-	-	-	-	-	5	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending October 18, 1986 and October 19, 1985 (42nd Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tularemia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1986	Cum. 1985	1986	Cum. 1986	Cum. 1985	Cum. 1986	Cum. 1986	Cum. 1986	Cum. 1986
UNITED STATES	21,253	21,740	5	17,595	17,098	123	281	686	4,485
NEW ENGLAND	394	476	-	565	590	1	14	13	8
Maine	17	13	-	34	40	-	-	-	-
N.H.	10	36	-	23	20	-	-	2	1
Vt.	8	6	-	15	7	-	-	-	2
Mass.	207	236	-	309	351	1	11	4	-
R.I.	21	14	-	41	47	-	-	3	3
Conn.	131	171	-	143	125	-	3	4	2
MID ATLANTIC	3,007	2,945	-	3,506	3,113	1	21	31	563
Upstate N.Y.	150	224	-	494	541	-	4	19	74
N.Y. City	1,704	1,801	-	1,843	1,505	-	9	5	-
N.J.	528	563	-	594	425	1	7	2	17
Pa.	625	357	-	575	642	-	1	5	472
E.N. CENTRAL	780	821	-	2,091	2,094	-	20	54	121
Ohio	101	125	-	368	361	-	7	48	14
Ind.	93	71	-	230	259	-	2	-	17
Ill.	351	381	-	877	923	-	3	2	35
Mich.	141	191	-	518	432	-	6	4	24
Wis.	94	53	-	98	119	-	2	-	31
W.N. CENTRAL	170	187	-	523	479	34	8	46	679
Minn.	29	39	-	121	103	-	1	1	98
Iowa	6	17	-	46	49	1	-	1	154
Mo.	90	98	-	280	229	26	6	23	67
N. Dak.	5	2	-	8	9	-	-	1	138
S. Dak.	7	5	-	23	26	2	-	6	141
Nebr.	11	7	-	12	13	1	-	5	28
Kans.	22	19	-	65	90	4	1	9	53
S. ATLANTIC	6,435	6,344	-	3,484	3,476	9	42	314	1,132
Del.	51	33	-	36	34	-	1	1	1
Md.	369	380	-	256	308	2	15	28	516
D.C.	247	273	-	122	133	1	4	-	28
Va.	290	239	-	282	332	2	9	48	166
W. Va.	19	20	-	102	91	-	3	9	38
N.C.	417	558	-	475	430	1	4	119	9
S.C.	560	670	-	447	434	-	-	70	60
Ga.	1,217	1,119	-	595	585	3	-	37	167
Fla.	3,265	3,052	-	1,169	1,129	-	6	2	147
E.S. CENTRAL	1,424	1,671	-	1,567	1,477	10	3	96	295
Ky.	60	55	-	351	349	3	-	20	81
Tenn.	504	523	-	457	426	5	1	40	109
Ala.	433	536	-	494	448	1	1	22	103
Miss.	427	557	-	265	254	1	1	14	2
W.S. CENTRAL	4,253	5,013	2	2,208	2,172	55	21	122	626
Ark.	201	267	1	300	234	38	-	9	141
La.	736	875	-	348	321	1	1	-	18
Okla.	113	149	1	209	212	11	2	96	56
Tex.	3,203	3,722	-	1,351	1,405	5	18	17	411
MOUNTAIN	463	572	-	421	438	10	15	9	591
Mont.	6	6	-	24	46	1	1	4	190
Idaho	13	5	-	20	22	-	-	1	9
Wyo.	2	7	-	-	5	-	-	1	246
Colo.	108	145	-	34	53	3	1	3	29
N. Mex.	54	106	-	83	73	1	1	-	6
Ariz.	195	258	-	201	200	-	8	-	93
Utah	15	8	-	29	12	4	3	-	7
Nev.	70	37	-	30	27	1	1	-	11
PACIFIC	4,327	3,711	3	3,232	3,257	3	107	1	470
Wash.	122	91	3	163	190	1	3	-	5
Oreg.	92	84	-	107	107	-	-	-	-
Calif.	4,082	3,479	-	2,773	2,726	1	99	1	457
Alaska	1	4	-	46	81	1	1	-	8
Hawaii	30	53	-	143	153	-	4	-	-
Guam	1	2	-	34	36	-	1	-	-
P.R.	723	698	-	288	295	-	5	-	41
V.I.	1	3	U	1	1	-	-	-	-
Pac. Trust Terr.	213	100	-	60	61	-	46	-	-
Amer. Samoa	-	-	-	5	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending October 18, 1986 (42nd Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	653	465	109	49	15	15	48
Boston, Mass	173	108	37	17	4	7	18
Bridgeport, Conn	43	27	9	6	1	-	3
Cambridge, Mass	24	18	4	2	-	-	3
Fall River, Mass	24	21	3	-	-	-	-
Hartford, Conn	62	39	14	8	1	-	7
Lowell, Mass	27	20	5	1	-	1	2
Lynn, Mass	27	22	4	1	-	-	3
New Bedford, Mass	22	20	2	-	-	-	-
New Haven, Conn	48	29	7	4	5	3	1
Providence, R.I.	67	52	9	4	-	2	3
Somerville, Mass	7	7	-	-	-	-	-
Springfield, Mass	33	25	6	-	1	1	2
Waterbury, Conn	23	21	2	-	-	-	1
Worcester, Mass	73	56	7	6	3	1	5
MID ATLANTIC	2,465	1,633	494	218	56	64	110
Albany, N.Y.	42	32	9	-	1	-	1
Allentown, Pa	13	10	-	1	2	-	-
Buffalo, N.Y.	131	90	23	8	2	8	13
Camden, N.J.	21	12	4	3	1	1	-
Elizabeth, N.J.	26	16	5	4	1	-	-
Erie, Pa †	36	30	5	-	-	1	2
Jersey City, N.J.	64	41	14	8	-	1	2
N.Y. City, N.Y.	1,317	848	263	142	30	34	55
Newark, N.J.	48	25	15	4	1	3	2
Paterson, N.J.	31	24	4	2	1	-	3
Philadelphia, Pa	294	185	65	25	8	11	7
Pittsburgh, Pa †	83	58	20	4	1	-	3
Reading, Pa	36	23	11	1	1	-	3
Rochester, N.Y.	100	73	21	1	2	3	9
Schenectady, N.Y.	29	25	3	1	-	-	3
Scranton, Pa †	31	21	5	5	-	-	1
Syracuse, N.Y.	83	61	13	5	2	2	3
Trenton, N.J.	31	19	9	3	-	-	1
Utica, N.Y.	28	23	3	-	2	-	1
Yonkers, N.Y.	22	18	2	1	1	-	1
E.N. CENTRAL	2,143	1,402	459	162	53	67	87
Akron, Ohio	49	38	11	-	-	-	-
Canton, Ohio	38	24	10	2	1	1	2
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	118	77	24	8	4	5	14
Cleveland, Ohio	165	96	48	15	3	3	4
Columbus, Ohio	124	79	26	13	3	3	1
Dayton, Ohio	80	50	21	7	1	1	2
Detroit, Mich	250	151	51	32	7	9	6
Evansville, Ind	43	26	14	2	-	1	2
Fort Wayne, Ind	63	45	12	2	3	1	1
Gary, Ind	16	10	5	1	-	-	-
Grand Rapids, Mich	39	28	7	2	1	1	7
Indianapolis, Ind	121	76	22	11	4	8	7
Madison, Wis	30	21	5	1	2	1	2
Milwaukee, Wis	125	85	24	5	6	5	2
Peoria, Ill	45	33	4	3	2	3	3
Rockford, Ill	45	34	9	1	1	-	5
South Bend, Ind	57	40	11	3	2	1	3
Toledo, Ohio	108	79	19	6	2	2	6
Youngstown, Ohio	63	48	11	3	1	-	4
W.N. CENTRAL	792	558	144	45	13	32	42
Des Moines, Iowa	54	41	6	5	1	1	4
Duluth, Minn	22	17	4	-	1	-	-
Kansas City, Kans	39	24	9	6	-	-	2
Kansas City, Mo	137	89	34	5	2	7	10
Lincoln, Nebr	30	26	3	-	1	-	5
Minneapolis, Minn	154	119	25	4	2	4	5
Omaha, Nebr	98	61	18	8	3	8	8
St Louis, Mo	147	97	28	9	2	11	6
St Paul, Minn	56	43	6	6	-	1	1
Wichita, Kans	55	41	11	2	1	-	1
S. ATLANTIC	1,146	676	284	103	39	44	45
Atlanta, Ga	144	78	32	19	5	10	3
Baltimore, Md	196	120	50	14	3	9	9
Charlotte, N.C.	89	48	26	7	3	5	2
Jacksonville, Fla	108	61	30	9	5	3	3
Miami, Fla	126	71	30	11	7	7	-
Norfolk, Va	50	25	19	4	1	1	4
Richmond, Va	66	44	17	2	2	1	5
Savannah, Ga	24	14	7	2	1	-	1
St Petersburg, Fla	108	87	14	5	1	1	9
Tampa, Fla	56	30	13	6	5	2	4
Washington, D.C.	162	88	42	21	6	5	5
Wilmington, Del	17	10	4	3	-	-	-
E.S. CENTRAL	806	487	180	54	30	55	40
Birmingham, Ala	100	68	22	3	2	5	2
Chattanooga, Tenn	72	50	13	5	4	-	4
Knoxville, Tenn	74	52	16	1	3	2	4
Louisville, Ky	69	37	17	7	3	5	3
Memphis, Tenn	287	144	64	33	12	34	16
Mobile, Ala	52	38	11	-	1	2	4
Montgomery, Ala	25	16	9	-	-	-	1
Nashville, Tenn	127	82	28	5	5	7	6
W.S. CENTRAL	1,348	771	328	143	55	51	48
Austin, Tex	46	32	9	3	1	1	3
Baton Rouge, La	37	25	4	5	1	2	2
Corpus Christi, Tex	36	24	10	1	1	-	-
Dallas, Tex	198	99	56	30	8	5	4
El Paso, Tex	52	36	10	4	-	2	5
Fort Worth, Tex	97	56	22	6	6	7	2
Houston, Tex	315	158	84	44	16	13	9
Little Rock, Ark	77	42	17	7	4	7	6
New Orleans, La	121	70	30	15	4	2	-
San Antonio, Tex	195	113	49	18	9	6	11
Shreveport, La	80	48	19	8	2	3	3
Tulsa, Okla	94	68	18	2	3	3	3
MOUNTAIN	627	397	126	39	32	33	36
Albuquerque, N.Mex	79	46	17	10	3	3	4
Colo. Springs, Colo	26	19	4	2	1	-	2
Denver, Colo	110	69	19	5	6	11	6
Las Vegas, Nev	91	50	21	8	8	4	2
Ogden, Utah	27	22	3	1	-	1	6
Phoenix, Ariz	133	77	32	5	10	9	9
Pueblo, Colo	30	24	5	-	1	-	4
Salt Lake City, Utah	48	26	12	5	2	3	1
Tucson, Ariz	83	64	13	3	1	2	2
PACIFIC	1,689	1,092	350	139	50	55	101
Berkeley, Calif	25	16	4	4	1	-	6
Fresno, Calif	85	57	21	4	-	3	9
Glendale, Calif	15	10	3	2	-	-	1
Honolulu, Hawaii	60	39	16	4	-	1	7
Long Beach, Calif	139	90	24	12	4	9	15
Los Angeles, Calif	346	196	72	49	21	5	6
Oakland, Calif	72	47	11	6	3	5	4
Pasadena, Calif	25	14	5	3	1	2	2
Portland, Oreg	95	64	20	7	2	2	4
Sacramento, Calif	150	93	43	6	3	5	13
San Diego, Calif	151	110	31	3	4	3	13
San Francisco, Calif	136	91	23	17	2	3	3
San Jose, Calif	165	116	32	7	2	8	9
Seattle, Wash	134	86	24	13	4	7	4
Spokane, Wash	57	46	7	2	1	1	4
Tacoma, Wash	34	17	14	-	2	1	1
TOTAL	11,669††	7,481	2,474	952	343	416	557

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*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§ Data not available. Figures are estimates based on average of past 4 weeks.

Table V. Estimated years of potential life lost before age 65 and cause-specific mortality, by cause of death — United States, 1984

Cause of mortality (Ninth Revision ICD)	Years of potential life lost by persons dying in 1984*	Cause-specific mortality† (rate/100,000)
ALL CAUSES (Total)	11,761,000	866.7
Unintentional injuries§ (E800-E949)	2,308,000	40.1
Malignant neoplasms (140-208)	1,803,000	191.6
[redacted]	[redacted]	[redacted]
Suicide, homicide (E950-E978)	1,247,000	20.6
Congenital anomalies (740-759)	684,000	5.6
Prematurity¶ (765, 769)	470,000	3.5
Sudden infant death syndrome (798)	314,000	2.4
Cerebrovascular diseases (430-438)	266,000	65.6
Chronic liver diseases and cirrhosis (571)	233,000	11.3
Pneumonia and influenza (480-487)	163,000	25.0
Chronic obstructive pulmonary diseases (490-496)	123,000	29.8
Diabetes mellitus (250)	119,000	15.6

*For details of calculation, see footnotes for Table V, *MMWR* 1986;35:27.

†Cause-specific mortality rates as reported in the MVSR are compiled from a 10% sample of all deaths.

§Equivalent to accidents and adverse effects.

¶Category derived from disorders relating to short gestation and respiratory distress syndrome.

AIDS – Continued

among blacks than whites (separate values for Hispanics are not available since ethnicity was not recorded). Antibody seroprevalence rates were over 4 times higher for black military recruit applicants and over 7 times higher for black potential blood donors in one city than for whites (*6,7*). However, the population of individuals volunteering for military service or blood donation may not be representative of the U.S. population at large.

Several factors may contribute to the elevated incidence of AIDS and HTLV-III/LAV infection among these racial/ethnic groups. The racial/ethnic distribution of AIDS cases may reflect, to some degree, the racial/ethnic distribution of the populations at risk in the high-prevalence areas. Persons at risk become so as a result of underlying risk factors, not because of their race/ethnicity. Reported AIDS patients who are IV drug abusers are predominately black (51%) or Hispanic (30%). Children with AIDS whose parents abuse IV drugs are also predominately black (51%) or Hispanic (31%). Population-based estimates of the racial/ethnic distribution of IV drug abusers in the United States are unknown. However, in September 1982, the National Institute on Drug Abuse (NIDA) surveyed all known drug abuse treatment

AIDS – Continued

Table 2. Percentage distribution of cases of AIDS among adults (age ≥15 years), by race/ethnic group, by selected transmission category, as of September 8, 1986

Transmission category[*]	Total number	Percentage			
		White[†]	Black[†]	Hispanic	Other[†]
For reference: U.S. population ≥15 years	175,254,960	81.4	10.6	5.7	2.3
Intravenous drug abusers not known to be homosexual	4,147	18.5	51.4	29.8	0.3
Intravenous drug abusers known to to be homosexual	1,881	64.1	22.1	13.6	0.3
Homosexual men not known to be IV drug abusers	15,765	74.3	14.8	10.2	0.7
Persons with hemophilia or other clotting factor disorder	197	86.3	5.6	8.1	0.0
Women whose sex partner was a bisexual man	51	47.1	35.3	13.7	3.9
Heterosexual persons whose sex partner was an intravenous drug abuser	253	14.6	47.8	37.6	0.0
Blood transfusion recipients	424	78.3	13.7	5.9	2.1
Undetermined (persons with no identified mode of acquisition)	833	35.4	43.7	19.6	1.3
Total[§]	**24,102**	**60.4**	**24.8**	**14.2**	**0.6**

[*] Cases with more than one risk factor (possible mode of acquisition), other than the combination of male homosexuality and intravenous drug abuse, shown only in the first applicable category listed.

[†] Non-Hispanic.

[§] The total includes a) nine AIDS patients who have had heterosexual contact with a person who had AIDS or who had a risk factor for AIDS, b) 525 AIDS patients without other identified risk factors who were born in countries in which heterosexual transmission is believed to play a major role, although precise means of transmission have not yet been fully defined (virtually all of whom are black, non-Hispanic), and c) 17 AIDS patients who had heterosexual contact with a person born in one of these countries (76% of whom are black, non-Hispanic). The total excludes 122 persons of unknown race/ethnic group.

AIDS – Continued

facilities in the United States to determine the racial/ethnic composition of the client populations using those facilities (*8*). The racial/ethnic distribution of clients in the surveyed clinics was 32% white, 40% black, 28% Hispanic, and < 1% "other race" for clients in the New York City standard metropolitan statistical area (SMSA), and 41% white, 50% black, and 9% Hispanic in the Newark, New Jersey, SMSA. This survey indicates that in these SMSA's, which have reported two-thirds of the IV drug abusers with AIDS, a disproportionate number of IV drug abusers attending these clinics were black or Hispanic.

Economic and cultural factors may also be associated with the observed differences in incidence for racial/ethnic groups. For example, education and economics may play a role in

Table 3. Percentage distribution of cases of AIDS among children (age < 15 years), by race/ethnic group, by selected transmission category, as of September 8, 1986

Transmission category*	Total number	Percentage			
		White†	Black†	Hispanic	Other†
For reference: U.S. population < 15 years	51,290,339	73.3	14.6	9.1	3.0
Children with hemophilia or other clotting factor disorder	18	66.7	27.8	5.6	0.0
Children whose mother was an intravenous drug abuser	162	8.6	63.0	28.4	0.0
Children whose mother had a male sex partner who was bisexual	13	30.8	53.8	15.4	0.0
Children whose mother had a male sex partner who was an intravenous drug abuser	38	10.5	44.7	44.7	0.0
Children whose mother was known to be infected with HTLV-III/LAV but had no identified risk factor	11	9.1	81.8	9.1	0.0
Blood transfusion recipients	49	55.1	30.6	14.3	0.0
Undetermined (children with no identified mode of acquisition)	10	30.0	60.0	10.0	0.0
Total§	**350**	**19.4**	**58.3**	**22.0**	**0.3**

*Patients with more than one risk factor (possible mode of acquisition) are shown only in the first applicable category listed.

†Non-Hispanic.

§The total includes five children whose mothers' only identified possible mode of acquisition of HTLV-III/LAV infection was a blood transfusion, one child whose mother's male sex partner had received a transfusion, and 43 children whose mothers were born in countries in which heterosexual transmission is believed to play a major role, although precise means of transmission have not yet been fully defined (virtually all of whom are black, non-Hispanic). The total excludes two children of unknown race/ethnic group.

AIDS – Continued

the observed difference in needle-sharing practices and, therefore, in the HTLV-III/LAV infection rates among white, black, and Hispanic IV drug abusers. In a study of HTLV-III/LAV infection among IV drug abusers in New York City, the prevalence of antibody to HTLV-III/LAV was higher for black (42%) and Hispanic (42%) patients than for white patients (14%) who were drug abusers (*9*). Preliminary analysis of data from the same study indicates that a higher proportion of white patients (18%) than black or Hispanic patients (8%) reported using new needles at least half the time when they injected drugs. Black and Hispanic participants in the study reported having substantially fewer years of education and were more likely than white patients to receive public assistance. Further analysis of data from this study and further study of HTLV-III/LAV infection involving other IV-drug-abusing populations are needed to fully understand the reasons black and Hispanic drug abusers have higher rates of AIDS and HTLV-III/LAV infection.

Education and prevention programs may be less effective in reaching minority populations unless specifically designed for those groups. Targeted programs are needed for black and Hispanic men who engage in homosexual activity, and for blacks and Hispanics of either sex who are engaging in other high-risk behavior. One report has suggested that many blacks who engage in homosexual activity are bisexual, and that these men may not benefit from educational programs designed for homosexuals (*10*). Programs to prevent transmission of HTLV-III/LAV infection through heterosexual contact and perinatal exposure also need to consider that approximately 75% of heterosexual patients, 73% of women with AIDS, and 92% of children with perinatally acquired infection are black or Hispanic.

Until an effective therapy or vaccine is available, prevention of HTLV-III/LAV infection depends on education and behavioral modification of persons at increased risk (*11,12*). The U.S. Public Health Service has assisted and encourages involvement of minority professional and community organizations in providing education about AIDS and its prevention in black and Hispanic communities. Additional health-education/risk-reduction projects are needed to actively involve minority communities in the accomplishment of overall community AIDS risk-reduction activities.

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International Notes

Orthopoxvirus Infections

The World Health Organization (WHO) Committee on Orthopoxvirus Infections met in Geneva, Switzerland, March 24-26, 1986 (*1*). The following is a summary of some of the major topics discussed and several proposals for action drafted at that meeting.

Smallpox vaccination policy: All member states of WHO report that they have discontinued routine smallpox vaccination and that a certificate of smallpox vaccination from international travelers is no longer required in any country in the world. However, some countries continue to vaccinate military personnel; the Committee recommends that this practice be discontinued.

The original WHO recommendation for discontinuing smallpox vaccination was formulated before the development of techniques using modified (recombinant) strains of vaccinia virus as vectors (carriers) for the expression of antigens to protect against diseases other than smallpox. The WHO recommendation against smallpox vaccination does not apply to the use of vaccinia for immunization against diseases other than smallpox.

Reserve stocks of smallpox vaccine: Because nearly a decade has passed since the last case of endemic smallpox, the Committee felt that it is no longer necessary for WHO to maintain a global reserve of smallpox vaccine.

Investigation of suspected cases: Only 10 rumors of suspected cases of smallpox were reported to WHO in 1985. The Committee concluded that investigation of rumors in the future could be carried out by medical authorities of the member states of WHO.

Retention of variola virus stocks: Only two laboratories (the Centers for Disease Control, in Atlanta, and the Research Institute of Viral Preparations, Moscow, U.S.S.R.), still maintain stocks of variola (smallpox) virus. Neither laboratory plans to resume experiments involving the culturing of variola virus. The variola gene pool has been cloned into nonexpressing sites in bacterial plasmids to allow future study of the variola virus. The Committee's opinion is that it will not be necessary to retain stocks of viable variola virus after the cloning of DNA from variola has been completed, and recommends that remaining stocks be destroyed at that time.

Monkeypox: In 1985, 55 cases of human monkeypox were reported; all cases were from Zaire. WHO has sponsored intensive surveillance activities in a population of about five million people in Zaire. The incidence of human monkeypox is very low, and confidence is growing that the virus cannot sustain itself in human-to-human spread. The Committee recommended that WHO discontinue its direct involvement in monkeypox surveillance at the end of 1986.

Reported by International Health Program Office, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: The last endemic case of smallpox occurred in October 1977 in Somalia. Two cases of smallpox occurred in the United Kingdom in 1978 associated with a smallpox research laboratory. The Committee on Orthopoxvirus Infections observed that in October 1987, 10 years will have elapsed since the last case of endemic smallpox—a more than adequate period of time to provide full assurance that naturally occurring smallpox will not recur.

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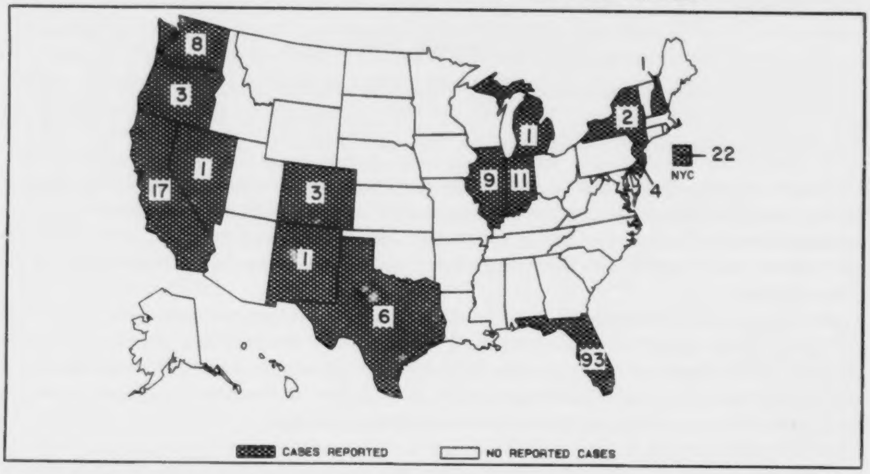
FIGURE I. Reported measles cases — United States, weeks 38-41, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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Current Trends

Surveillance of Hemophilia-Associated Acquired Immunodeficiency Syndrome

As of September 15, 1986, a total of 238 cases of hemophilia-associated acquired immunodeficiency syndrome (AIDS) have been reported to CDC through state health departments, hemophilia treatment centers (HTCs), and physicians. Of the 238 patients, 212 (89%) had hemophilia A (coagulation factor VIII deficiency); 16 (7%), hemophilia B (factor IX deficiency); seven (3%), von Willebrand's disease; two, an acquired inhibitor (antibody) to factor VIII; and one, a factor V deficiency. All but seven (3%) of the patients were male. Thirteen patients were known to have had other risk factors for AIDS in addition to a hematologic disease. The 238 patients resided in 38 states; almost half lived in California, New York, Pennsylvania, New Jersey, or Missouri. The total number of cases represents a cumulative incidence of 1.6 cases of AIDS/100 hemophiliacs in the United States (*1*).

The first AIDS patient with underlying coagulation disorders was diagnosed as having *Pneumocystis carinii* pneumonia in 1981. Later it was recognized that this patient had AIDS. Since then, the number of hemophilia-associated AIDS cases has increased each year. The reported number of cases among hemophiliacs does not appear to be increasing at an exponential rate (Figure 1); however, in 1985, 92% of persons with hemophilia A and 52% of those with hemophilia B in a U.S. hemophilia cohort had antibodies to human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV)*, suggesting exposure to the virus or to virus particles (*2*). HTLV-III/LAV seropositivity in this cohort was associated with declining T_{helper} lymphocyte numbers and with declining T_{helper}-to-$T_{suppressor}$ cell ratios. Because of these high rates of seroprevalence and immunology findings, concern had been expressed that the recent incidence of hemophilia-associated AIDS may be misleadingly low because of a decline in reporting.

To determine the completeness of reporting, the Division of Host Factors (DHF), Center for Infectious Diseases, CDC, and the National Hemophilia Foundation (NHF) surveyed all United States HTCs, local NHF chapters, and physicians known to have patients with hemophilia (*3*). On May 14, 1986, each HTC/physician was sent a list of persons with hemophilia-associated AIDS according to DHF records as of May 1, 1986. Since patients' names are not used at DHF, cases were identified only by the patient's date of birth, the date of diagnosis, and the

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*The AIDS virus has been variously termed human T-lymphotropic virus type III (HTLV-III/LAV), lymphadenopathy-associated virus (LAV), AIDS-associated retrovirus (ARV), or human immunodeficiency virus (HIV). The designation "human immunodeficiency virus" (HIV) has been accepted by a subcommittee of the International Committee for the Taxonomy of Viruses as the appropriate name for the retrovirus that has been implicated as the causative agent of AIDS (Science 1986;232:697).

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HTLV-III/LAV – Continued

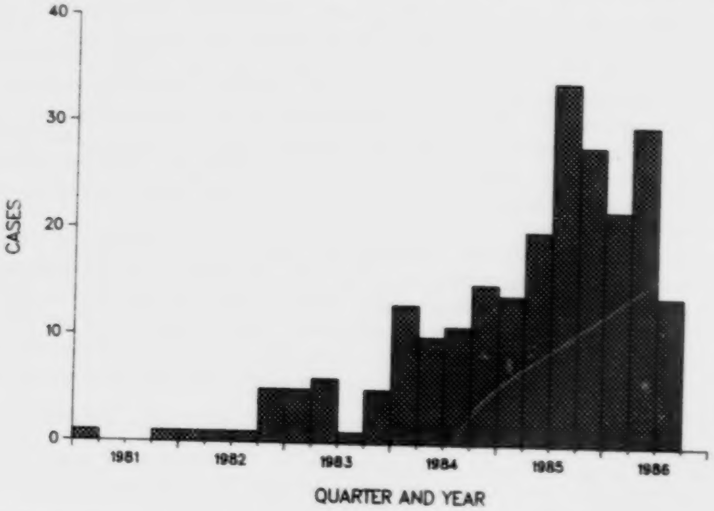
nature of the AIDS diagnosis. The HTCs/physicians were asked to add to this list any other known cases—confirmed or suspected—among persons with hemophilia. DHF personnel telephoned all HTCs/physicians who had not responded by August 1, 1986.

A total of 240 HTCs/physicians and 34 NHF chapters were sent letters, and written responses were received from 61 (25%) HTCs/physicians. Information was obtained by telephone from 209 of the 213 addressees who had not responded; four NHF chapters could not be reached. In addition, DHF personnel contacted the state health departments of three states that had no reported cases and no HTCs or physicians listed in the NHF directory. From these efforts, eight previously unreported cases of AIDS among persons with hemophilia were identified. Two patients were from California (diagnosis of AIDS 12/84 and 7/85); two were from Oregon (diagnosis of AIDS 3/86 and 7/86); and one each from Colorado (diagnosis of AIDS 3/85), Missouri (5/85), New York (4/85), and Virginia (1/86). In four instances, the physicians assumed that the cases had been reported to the appropriate state health departments. In the other instances, two cases involved physicians who did not realize their legal responsibility to report cases of AIDS to the state; one case involved a postmortem diagnosis of opportunistic infection, of which the physician had been unaware; and one case involved an acquired inhibitor to factor VIII, which the physician did not realize constituted a case of hemophilia-associated AIDS.

Reported by National Hemophilia Foundation and associated Hemophilia Treatment Centers; Div of Host Factors, Center for Infectious Diseases, CDC.

Editorial Note: National surveillance for AIDS cases among persons with hemophilia is maintained through the receipt of standard AIDS case report forms submitted by the state health departments to CDC and through reports (without names) sent directly to DHF by physicians

FIGURE 1. Cases of hemophilia-associated acquired immunodeficiency syndrome, by quarter of diagnosis — United States, January 1, 1981-September 15, 1986*



*Recently diagnosed cases may not be included because of a lag time in reporting.

and nurses who care for patients with hemophilia. In the latter case, information is immediately shared with the state health department. The eight unreported cases identified in the CDC-NHF survey represent approximately 3% of all reported hemophilia-associated AIDS cases in the United States. This approximates the percentage of such cases that were reclassified according to the case definition for AIDS revised in 1985 (*4*).

In interpreting the findings of this survey, it should be noted that approximately 50%-60% of persons with hemophilia in the United States receive care through HTCs or hematologists (CDC data, unpublished). However, this selection bias probably does not significantly distort the results of the survey, because hemophiliacs at greatest risk for contracting AIDS, i.e., those who require extensive concentrated clotting-factor replacement (*5*), are most likely to be followed by these health care providers. The survey could not determine willingness/unwillingness to perform confirmatory diagnostic procedures such as esophagoscopy or lung biopsy in the hemophiliac population. Conversations with HTC personnel and physicians, however, suggest that confirmatory procedures are usually done. Finally, this approach to validation of the surveillance system assumes that physicians who do not initially choose to report AIDS cases (e.g., for reasons of confidentiality) would do so when contacted personally. This may not be the case. Nevertheless, the survey described here and other studies (*6,7*) suggest that surveillance of AIDS (as currently defined) — particularly of hemophiliacs — is relatively complete.

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International Notes

Imported Paralytic Poliomyelitis — United States, 1986

In May 1986, a 29-year-old California woman contracted paralytic poliomyelitis while traveling in Asia. She had worked and traveled in Nepal from January through May 2, and she visited Burma between May 3 and May 9. On May 10, she traveled to Thailand, where she had onset of fever (a temperature of 102 F), malaise, and a feeling of weakness lasting 1 day. On May 16, she again had symptoms: fever (a temperature of 104.2 F), headache, and low back pain. On May 17, she experienced weakness in the lower extremities (right more than

Poliomyelitis – Continued

left), constipation, and urinary retention. On May 19, she was unable to walk and was hospitalized in Bangkok. A flaccid paralysis of the lower extremities without sensory or bulbar involvement was noted. Cerebrospinal fluid contained 90 leukocytes, of which 93% were lymphocytes.

The patient returned to the United States on June 6, confined to a wheelchair. On examination, she was noted to have flaccidity and no deep-tendon reflexes in the right lower extremity. Her sensory modalities were intact; constipation and urinary retention had resolved. Poliovirus type 1 was isolated from stool collected on June 22 and subsequently characterized as "wild-like" by genomic sequencing (*1*). Electromyography and nerve-conduction studies performed on June 26 were consistent with axonal neuropathy of poliomyelitis. The results of serologic tests for immunoglobulin IgG, IgA, and IgM were within normal ranges. At 60 days after the onset of weakness, she had residual paralysis of the right leg below the knee.

The patient had a vaccination history of three doses of inactivated poliovirus vaccine (IPV) in the late 1950s and one "sugar cube" (not known whether it contained a monovalent [MOPV] or a trivalent oral poliovirus vaccine [OPV]) at a mass clinic in the early 1960s. The patient had traveled previously in Asia and elsewhere, but had not received any doses of poliovirus vaccine before any departures.

Reported by J Jones, Placer County Health Officer, J Chin, State Epidemiologist, California Dept of Health Svcs; Div of Immunization, Center for Prevention Services, CDC.

Editorial Note: The last cases of paralytic poliomyelitis acquired in the United States and caused by wild poliovirus occurred in 1979. From 1980 through 1985, four reported cases of paralytic poliomyelitis caused by wild virus occurred among U.S. citizens—all persons returning from developing countries. These imported cases represent 7% of the 55 cases of paralytic poliomyelitis reported during the 6-year period 1980-1985. The other 51 cases were vaccine associated. During the preceding 6-year period (1974-1979), nine (12%) of 78 reported cases of paralytic poliomyelitis were imported. Of the 13 persons who had imported cases reported between 1974 and 1985, six (46%) were over 18 years of age. The vaccination status of the 13 patients was as follows:

a) seven had no history of poliovirus vaccination;
b) four had received one or two doses of poliovirus vaccine (one had had two doses of OPV; two, one dose of OPV; and one, one dose of IPV); and
c) two had completed at least a primary series (one with three doses of OPV and the other with five doses of IPV, three doses of MOPV, and one dose of OPV).

In addition, some inappropriately immunized U.S. residents and others may become infected asymptomatically while in an area with endemic poliomyelitis and may excrete wild polio virus temporarily after entering the United States (*2*).

Worldwide, 24,275 cases of paralytic poliomyelitis were reported to the World Health Organization (WHO) in 1984 (*3*). WHO's Southeast Asia region accounted for 15,167 cases (63% of the world total); followed by 4,513 cases (19%) in the Western Pacific region; 1,959 cases (8%) in the Eastern Mediterranean region; 1,833 cases (8%) in the African region; 571 cases (2%) in the Americas; and 238 cases (1%) in Europe. The global surveillance data doubtless reflect substantial underreporting, but provide useful information on trends.

The widespread use of OPV through the WHO Expanded Program on Immunization (EPI) is probably responsible for the observed downward trend in the incidence of poliomyelitis throughout the world—and thus for the probable reduction in recent years of the risk that individual travelers would be exposed to wild virus in some countries. Conversely, the trend among U.S. citizens toward more frequent international travel may lead to a greater overall

Poliomyelitis – Continued

risk of exposure to wild poliovirus. In 1983, an estimated 5 million U.S. citizens visited developing countries.

Travelers to countries with endemic or epidemic poliomyelitis should be fully vaccinated (*3,4,5*). The only countries currently considered free of endemic wild poliovirus circulation are the United States, Canada, Japan, Australia, New Zealand, and most of Eastern and Western Europe. Before visiting other countries, every traveler should have received, at a minimum, a complete primary series of vaccinations (Table 1). In addition, the Immunization Practices Advisory Committee (ACIP) recommends that persons who have previously completed a primary series receive an additional dose of poliovirus vaccine, generally as OPV, before travel (*4*).

Persons who have not had a primary series and who have less than 4 weeks before beginning international travel should receive one dose of OPV regardless of age. Such travelers who are under 18 years of age should complete the primary series, at the recommended intervals, whether they remain in the foreign country or return to the United States. Persons 18 years and older should complete the primary series only if they remain in the foreign country or plan to travel again to a country with endemic poliomyelitis.

If at least 4 weeks remain before departure, inadequately vaccinated persons 18 years of age and older should receive, at intervals of no less than 4 weeks, additional doses of IPV up to the four recommended to complete a primary series. IPV is preferred to OPV for adults—especially those with no history of poliovirus vaccination, because the risk of vaccine-associated paralysis following OPV is slightly higher for adults than for children.

If time permits, infants and children under 2 years of age traveling to a country with endemic disease should receive at least three doses of OPV, since virtually all persons vaccinated with three doses seroconvert to all three poliovirus serotypes (*6*). Intervals between doses may be reduced to 4 weeks to maximize immunization status before departure. If the child is under 6 weeks of age, a dose of OPV should be given before travel, but should not be counted as part of the three-dose primary series (*3*). Thereafter, if the infant remains in a country with endemic disease, the primary schedule recommended by the EPI, three doses given at 4-week intervals, should be followed (*7*).

Poliomyelitis among travelers is preventable. Therefore, it is important that health-care providers, tour operators, and travel agents alert travelers to the potential risk of paralytic poliomyelitis in developing countries and that increased efforts be made to comply with published poliomyelitis vaccination recommendations (*4,5,8,9*).

TABLE 1. Alternative poliomyelitis vaccination schedules recommended by the Immunization Practices Advisory Committee (ACIP) for a primary series*

Doses	Oral poliovirus vaccine (OPV)	Inactivated poliovirus vaccine (IPV)
Primary 1	≥6 weeks of age	≥6 weeks of age
Primary 2	6-8 weeks later	4-8 weeks later
Primary 3	6 weeks-12 months later	4-8 weeks later
Primary 4		6-12 months later

*OPV is the vaccine of choice for all persons < 18 years of age, if there are no contraindications to vaccination with a live-virus vaccine. IPV is the vaccine of choice for unvaccinated persons ≥ 18 years of age.

Poliomyelitis – Continued

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*Available from the U.S. Government Printing Office, Washington, D.C., 20402.

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	43rd Week Ending			Cumulative, 43rd Week Ending		
	Oct. 25, 1986	Oct. 26, 1985	Median 1981-1985	Oct. 25, 1986	Oct. 26, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	309	103	N	10,[illegible]	6,535	N
Aseptic meningitis	352	307	307	8,406	8,460	8,049
Encephalitis: Primary (arthropod-borne & unspec.)	34	38	41	999	1,081	1,272
Post-infectious	-	2	1	84	108	78
Gonorrhea: Civilian	18,800	18,841	18,575	732,983	735,590	746,297
Military	396	501	520	13,893	17,806	20,263
Hepatitis: Type A	546	589	535	18,441	18,642	18,642
Type B	527	572	486	21,130	21,446	19,649
Non A, Non B	70	85	N	2,871	3,412	N
Unspecified	88	126	152	3,697	4,749	6,073
Legionellosis	27	18	N	612	619	N
Leprosy	3	2	3	203	295	200
Malaria	34	19	18	946	866	866
Measles: Total*	60	9	28	5,685	2,583	2,426
Indigenous	51	8	N	5,393	2,155	N
Imported	9	1	N	292	428	N
Meningococcal infections: Total	32	39	44	2,024	1,973	2,264
Civilian	32	39	44	2,022	1,967	2,253
Military	-	-	-	2	6	11
Mumps	180	52	52	4,228	2,475	2,743
Pertussis	291	138	33	3,449	2,895	1,998
Rubella (German measles)	4	4	12	443	578	855
Syphilis (Primary & Secondary): Civilian	729	549	590	21,980	22,289	25,464
Military	6	1	9	138	142	325
Toxic Shock syndrome	5	4	N	285	314	N
Tuberculosis	468	440	492	18,085	17,536	19,323
Tularemia	3	6	6	126	158	231
Typhoid fever	5	5	7	257	317	333
Typhus fever, tick-borne (RMSF)	19	12	8	707	643	924
Rabies, animal	59	124	115	4,549	4,510	5,198

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis	27
Botulism: Foodborne (Okla. 1)	12	Plague	7
Infant	40	Poliomyelitis, Paralytic	1
Other	1	Psittacosis (Pa. 2, Ala. 1)	81
Brucellosis (Ill. 1, Nebr. 1, Miss. 1, Ark. 1, Calif. 1)	72	Rabies, human	-
Cholera (Calif. 1)	3	Tetanus (Mich. 1, Md. 1)	57
Congenital rubella syndrome	10	Trichinosis (Va. 1)	31
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine) (Tex. 7)	44
Diphtheria	-		

*Four of the 60 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending October 25, 1986 and October 26, 1985 (43rd Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	10,781	352	899	84	732,983	735,590	546	527	70	88	27	203
NEW ENGLAND	432	10	24	3	19,429	18,793	15	40	-	3	-	7
Maine	18	1	-	-	708	964	1	-	-	-	-	-
N.H.	10	-	2	-	464	472	-	-	-	-	-	-
Vt	4	-	4	2	225	274	1	1	-	-	-	-
Mass	237	3	5	-	7,293	7,667	5	23	-	2	-	7
R.I.	28	2	-	-	1,504	1,497	1	3	-	-	-	-
Conn	135	4	13	1	9,235	7,919	7	13	-	1	-	-
MID ATLANTIC	3,937	26	93	7	125,034	106,672	19	33	4	21	-	14
Upstate N.Y.	386	11	33	4	15,111	14,582	5	12	-	2	-	1
N.Y. City	2,673	7	18	-	72,315	52,686	-	7	-	15	-	12
N.J.	613	8	10	-	15,916	16,134	14	14	4	4	-	-
Pa	265	-	32	3	21,692	23,320	-	-	-	-	-	1
E.N. CENTRAL	638	95	300	11	96,504	97,403	32	75	8	1	6	5
Ohio	131	54	116	3	24,799	26,158	5	17	2	1	3	-
Ind	59	9	74	3	10,344	10,378	5	37	2	-	-	-
Ill	300	-	43	4	23,733	23,532	11	4	1	-	-	4
Mich	116	32	46	1	30,677	27,840	11	17	3	-	3	1
Wis	32	-	21	-	6,951	9,495	-	-	-	-	-	-
W.N. CENTRAL	204	14	69	9	31,318	34,251	13	7	1	-	2	3
Minn	72	6	31	-	4,498	5,137	1	2	-	-	1	1
Iowa	17	-	20	-	3,173	3,631	1	-	-	-	-	-
Mo	71	2	1	-	15,793	16,553	-	2	-	-	-	-
N. Dak	2	-	4	-	271	239	-	-	-	-	-	-
S. Dak	2	-	11	-	664	659	-	-	-	-	-	-
Nebr	10	1	-	1	2,370	2,858	1	2	-	-	-	-
Kans	30	5	2	8	4,549	5,174	10	1	1	-	1	2
S. ATLANTIC	1,496	84	132	31	190,378	192,135	56	136	11	6	11	2
Del	20	1	6	-	3,184	3,676	5	1	-	-	-	-
Md	159	6	29	1	22,291	24,164	9	9	5	1	-	-
D.C.	195	-	-	1	13,990	12,904	1	1	-	-	-	-
Va	128	13	36	1	15,786	16,110	3	19	-	1	1	1
W. Va	7	1	42	-	1,854	2,201	2	4	1	-	-	-
N.C.	63	19	17	2	29,403	30,318	6	20	2	2	2	-
S.C.	38	-	-	-	16,398	18,309	1	13	-	-	-	-
Ga	198	10	-	1	31,507	37,712	8	33	-	-	3	-
Fla	688	34	2	25	55,965	46,741	21	35	3	2	5	1
E.S. CENTRAL	129	17	58	4	58,947	63,216	5	16	3	2	1	1
Ky	25	4	28	1	6,468	7,237	-	3	1	-	-	-
Tenn	63	8	7	1	22,401	24,200	-	4	1	2	-	-
Ala	24	4	22	2	17,291	18,891	2	6	-	-	-	1
Miss	17	1	1	-	12,787	12,888	3	3	1	-	1	-
W.S. CENTRAL	929	43	153	6	85,942	93,110	107	66	12	30	4	19
Ark	27	-	-	2	8,283	8,989	-	-	-	-	-	1
La	130	-	9	-	15,077	17,689	7	12	1	-	-	1
Okla	39	2	19	-	9,920	10,246	9	8	1	2	2	-
Tex	733	41	125	4	52,662	56,186	91	46	10	28	2	17
MOUNTAIN	278	13	34	1	21,729	23,057	65	55	5	4	1	11
Mont	4	-	1	1	576	641	1	2	2	-	-	-
Idaho	3	-	-	-	740	784	4	2	-	-	-	-
Wyo	4	-	2	-	456	533	-	-	-	-	-	-
Colo	132	1	4	-	5,572	6,681	10	8	-	3	-	3
N. Mex	21	-	3	-	2,273	2,631	13	22	1	-	-	-
Ariz	68	4	16	-	6,976	6,891	28	10	1	-	1	5
Utah	17	7	6	-	910	1,098	4	5	1	-	-	1
Nev	29	1	2	-	4,226	3,798	5	6	-	1	-	2
PACIFIC	2,738	50	136	12	103,702	106,953	234	100	26	21	2	141
Wash	140	-	11	-	7,591	8,379	-	-	-	-	-	17
Oreg	50	-	-	-	4,414	5,378	39	18	3	-	-	-
Calif	2,493	45	118	12	88,376	89,200	192	78	23	21	2	95
Alaska	12	2	6	-	2,264	2,554	3	3	-	-	-	-
Hawaii	43	3	1	-	1,057	1,442	-	1	-	-	-	29
Guam	-	-	-	-	172	169	-	-	-	-	-	1
P.R.	77	-	5	1	2,012	2,631	2	16	-	-	-	7
V.I.	3	-	-	-	233	353	-	-	-	-	-	-
Pac. Trust Terr	-	-	-	-	408	766	2	-	-	-	-	43
Amer. Samoa	-	-	-	-	44	-	-	-	-	-	-	2

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending October 25, 1986 and October 26, 1985 (43rd Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	946	51	5,393	9	292	2,583	2,024	180	4,226	291	3,449	2,895	4	443	578
NEW ENGLAND	80	1	83	5	20	126	143	2	60	2	141	184	-	9	12
Maine	2	-	12	-	1	1	25	-	-	-	2	9	-	-	-
N H	3	-	43	-	-	-	6	-	14	-	72	104	-	1	2
Vt	2	-	-	-	-	-	17	-	4	-	3	3	-	1	-
Mass	32	1	25	-	12	118	36	-	10	2	34	45	-	4	6
R I	7	-	2	-	-	-	19	1	10	-	6	16	-	2	-
Conn	14	-	1	5§	7	7	40	1	22	-	24	7	-	1	4
MID ATLANTIC	129	-	1,686	-	33	217	328	3	180	-	173	190	-	34	221
Upstate N Y	44	-	77	-	23	85	110	-	59	-	109	98	-	26	17
N Y City	29	-	682	-	4	70	68	-	29	-	10	23	-	5	179
N J	32	-	905	-	4	28	30	2	46	-	17	11	-	3	11
Pa	24	-	22	-	2	34	118	1	46	-	37	58	-	-	14
E N CENTRAL	58	2	1,053	-	28	535	278	123	2,866	1	326	678	-	45	33
Ohio	19	-	-	-	10	60	112	-	116	-	146	89	-	1	-
Ind	2	2	27	-	11	57	28	2	36	-	26	188	-	-	1
Ill	15	-	689	-	4	299	70	109	2,203	-	35	66	-	34	16
Mich	18	-	59	-	-	60	59	12	287	1	35	44	-	8	15
Wis	4	-	278	-	3	59	9	-	224	-	84	291	-	2	1
W N CENTRAL	29	-	322	-	17	11	99	6	113	250	1,146	210	-	13	19
Minn	6	-	45	-	4	6	20	-	1	2	51	104	-	1	2
Iowa	1	-	133	-	1	-	11	2	34	-	19	28	-	1	1
Mo	11	-	25	-	6	2	34	4	21	1	19	29	-	1	7
N Dak	-	-	25	-	1	2	1	-	3	-	5	9	-	1	2
S Dak	2	-	-	-	-	-	5	-	1	-	14	3	-	-	-
Nebr	4	-	-	-	-	-	11	-	-	-	7	9	-	-	-
Kans	3	-	94	-	5	1	17	-	53	247	1,031	28	-	9	7
S ATLANTIC	110	-	663	-	56	324	362	5	206	6	707	479	1	14	51
Del	1	-	1	-	-	-	4	-	-	-	227	2	-	-	1
Md	14	-	26	-	9	110	45	1	19	2	163	271	-	-	6
D C	2	-	-	-	2	29	5	-	-	-	-	-	-	-	-
Va	28	-	36	-	24	28	63	-	38	-	36	17	-	-	2
W Va	4	-	2	-	-	33	3	3	48	-	23	4	-	-	9
N C	5	-	3	-	1	9	59	1	21	2	68	30	-	-	1
S C	6	-	274	-	-	3	33	-	12	-	18	2	-	-	3
Ga	12	-	79	-	14	8	53	-	28	1	129	91	-	-	-
Fla	38	-	242	-	6	104	97	-	40	1	43	62	1	14	29
E S CENTRAL	19	-	58	-	9	7	109	1	43	-	47	50	-	4	3
Ky	5	-	-	-	6	5	24	-	6	-	5	8	-	4	3
Tenn	1	-	55	-	1	1	37	1	32	-	16	20	-	-	-
Ala	9	-	1	-	1	-	35	-	4	-	25	18	-	-	-
Miss	4	-	2	-	1	1	13	-	1	-	1	4	-	-	-
W S CENTRAL	94	37	642	-	38	434	185	32	216	11	231	484	-	63	37
Ark	1	-	276	-	2	-	27	26	33	1	18	14	-	-	1
La	17	-	4	-	-	42	25	-	3	-	13	15	-	-	-
Okla	10	-	37	-	2	1	28	N	N	10	117	159	-	-	1
Tex	66	37	325	-	34	391	105	6	180	-	83	296	-	63	35
MOUNTAIN	31	-	302	-	29	539	98	2	235	3	240	200	-	23	6
Mont	-	-	-	-	8	137	10	-	5	-	14	9	-	2	-
Idaho	1	-	1	-	-	137	4	-	8	-	41	15	-	-	2
Wyo	-	-	-	-	-	5	2	-	-	-	4	-	-	1	-
Colo	8	-	2	-	8	13	16	1	14	2	65	75	-	1	-
N Mex	5	-	33	-	7	6	9	N	N	-	20	11	-	-	2
Ariz	11	-	252	-	6	241	21	-	186	-	56	38	-	2	1
Utah	3	-	12	-	-	-	10	1	14	1	36	52	-	14	-
Nev	3	-	2	-	-	-	26	-	8	-	4	-	-	3	1
PACIFIC	416	11	584	4	62	390	424	6	307	18	438	420	3	238	196
Wash	26	3	139	-	28	115	58	4	14	-	139	74	1	17	14
Oreg	15	-	7	-	4	5	32	N	N	-	12	44	1	4	1
Calif	374	8	411	4†	29	246	312	2	267	18	271	255	1	212	132
Alaska	-	-	-	-	-	-	12	-	8	-	2	30	-	-	1
Hawaii	1	-	27	-	1	24	10	-	20	-	14	17	-	5	48
Guam	1	-	4	-	1	11	-	-	4	-	-	-	-	4	2
P R	4	-	36	-	-	63	3	-	32	2	19	11	1	62	27
V I	-	-	-	-	-	10	-	1	16	-	-	-	-	-	-
Pac Trust Terr	-	-	-	-	-	-	1	-	11	-	-	-	-	2	-
Amer Samoa	-	-	2	-	-	-	-	-	5	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending October 25, 1986 and October 26, 1985 (43rd Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	21,980	22,289	5	18,085	17,536	126	257	707	4,549
NEW ENGLAND	399	487	-	574	612	1	15	13	8
Maine	17	13	-	34	40	-	-	-	-
N.H.	10	36	-	23	20	-	-	2	1
Vt	8	6	-	15	7	-	-	-	2
Mass	210	243	-	317	366	1	12	4	-
R.I.	21	14	-	41	47	-	-	3	3
Conn	133	175	-	144	132	-	3	4	2
MID ATLANTIC	3,100	3,015	-	3,582	3,152	1	22	34	578
Upstate N.Y.	155	228	-	505	546	-	4	19	75
N.Y. City	1,755	1,842	-	1,884	1,527	-	9	5	-
N.J.	550	579	-	602	425	1	8	2	17
Pa	640	366	-	591	654	-	1	8	486
E.N. CENTRAL	799	849	-	2,170	2,143	-	21	54	125
Ohio	103	128	-	383	365	-	7	48	14
Ind	95	71	-	237	266	-	2	-	17
Ill	363	400	-	910	947	-	3	2	36
Mich	143	194	-	540	444	-	6	4	24
Wis	95	56	-	100	121	-	3	-	34
W.N. CENTRAL	175	194	2	528	492	35	9	47	689
Minn	29	39	-	124	106	-	2	1	98
Iowa	6	18	-	46	49	1	-	1	160
Mo	93	103	1	261	235	27	6	23	67
N. Dak	5	2	-	6	10	-	-	1	141
S. Dak	9	6	-	23	27	2	-	6	141
Nebr	11	7	-	12	15	1	-	6	29
Kans	22	19	1	56	50	4	1	9	53
S. ATLANTIC	6,641	6,448	1	3,615	3,579	9	43	321	1,141
Del	52	34	-	36	39	-	1	1	1
Md	375	401	-	273	322	2	15	28	516
D.C.	250	282	-	128	133	1	4	-	31
Va	296	260	1	295	338	2	9	51	167
W. Va	19	21	-	104	93	-	3	10	40
N.C.	430	583	-	503	455	1	4	121	9
S.C.	581	678	-	463	441	-	-	70	60
Ga	1,246	1,147	-	613	596	3	-	38	170
Fla	3,392	3,052	-	1,200	1,162	-	7	2	147
E.S. CENTRAL	1,436	1,747	-	1,593	1,526	10	3	102	303
Ky	60	57	-	360	367	3	-	21	87
Tenn	504	528	-	459	447	5	1	42	109
Ala	445	560	-	506	458	1	1	24	105
Miss	427	602	-	268	254	1	1	15	2
W.S. CENTRAL	4,399	5,151	1	2,272	2,255	57	22	125	630
Ark	214	284	-	312	266	40	-	10	143
La	761	903	-	378	321	1	1	-	18
Okla	118	156	-	210	215	11	2	98	56
Tex	3,306	3,808	1	1,372	1,453	5	19	17	413
MOUNTAIN	478	582	1	434	449	10	15	10	601
Mont	6	6	-	24	46	1	1	4	194
Idaho	13	5	-	20	22	-	-	2	9
Wyo	2	7	-	-	5	-	-	1	260
Colo	113	148	-	38	58	3	1	3	29
N. Mex	54	112	-	83	73	1	1	-	6
Ariz	204	259	1	207	207	-	8	-	95
Utah	16	8	-	29	12	4	3	-	7
Nev	70	37	-	33	26	1	1	-	11
PACIFIC	4,553	3,816	-	3,317	3,328	3	107	1	474
Wash	120	97	-	176	194	1	3	-	5
Oreg	99	86	-	109	108	-	-	-	1
Calif	4,302	3,576	-	2,837	2,790	1	99	1	460
Alaska	1	4	-	46	81	1	1	-	8
Hawaii	31	53	-	149	155	-	4	-	-
Guam	1	2	-	34	38	-	1	-	-
P.R.	738	705	-	288	295	-	5	-	41
V.I.	1	3	-	1	1	-	-	-	-
Pac. Trust Terr	215	128	-	62	75	-	46	-	-
Amer. Samoa	-	-	-	5	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending October 25, 1986 (43rd Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	632	452	113	33	15	19	54
Boston, Mass.	146	90	27	12	4	13	21
Bridgeport, Conn.	48	39	8	-	1	-	5
Cambridge, Mass.	27	21	4	1	1	-	2
Fall River, Mass.	30	24	5	-	-	1	-
Hartford, Conn.	42	27	8	4	3	-	2
Lowell, Mass.	21	15	3	3	-	-	-
Lynn, Mass.	23	16	4	2	-	1	-
New Bedford, Mass.	27	22	3	2	-	-	1
New Haven, Conn.	42	29	9	-	4	-	3
Providence, R.I.	70	53	13	2	1	1	7
Somerville, Mass.	10	9	1	-	-	-	2
Springfield, Mass.	49	38	6	2	-	3	4
Waterbury, Conn.	27	14	10	2	1	-	4
Worcester, Mass.	70	55	12	3	-	-	3
MID. ATLANTIC	2,764	1,750	613	262	60	68	142
Albany, N.Y.	44	28	10	1	3	2	-
Allentown, Pa.	21	13	7	1	-	-	2
Buffalo, N.Y.	114	76	26	4	3	5	7
Camden, N.J.	47	23	15	4	2	3	1
Elizabeth, N.J.	28	19	6	3	-	-	-
Erie, Pa.†	40	31	8	-	-	1	5
Jersey City, N.J.	33	16	5	6	3	3	2
N.Y. City, N.Y.	1,443	902	306	179	34	22	69
Newark, N.J.	76	32	28	12	2	1	-
Paterson, N.J.	33	17	11	4	-	1	1
Philadelphia, Pa.	397	255	92	24	8	18	25
Pittsburgh, Pa.†	74	47	22	1	1	3	-
Reading, Pa.	39	27	10	-	-	2	3
Rochester, N.Y.	131	93	23	10	-	5	17
Schenectady, N.Y.	33	26	5	1	1	-	1
Scranton, Pa.†	29	22	6	1	-	-	1
Syracuse, N.Y.	86	59	17	6	2	2	5
Trenton, N.J.	38	25	9	4	-	-	-
Utica, N.Y.	17	15	2	-	-	-	2
Yonkers, N.Y.	31	24	5	1	1	-	1
E.N. CENTRAL	2,428	1,588	531	159	69	81	82
Akron, Ohio	73	53	13	5	2	-	-
Canton, Ohio	37	27	8	1	1	-	6
Chicago, Ill.§	564	362	125	45	10	20	16
Cincinnati, Ohio	154	111	30	2	4	7	15
Cleveland, Ohio	199	126	52	9	6	6	9
Columbus, Ohio	166	100	47	10	2	7	-
Dayton, Ohio	113	72	29	6	3	3	1
Detroit, Mich.	263	167	53	24	11	8	10
Evansville, Ind.	41	26	13	1	-	1	-
Fort Wayne, Ind.	46	39	6	-	1	-	3
Gary, Ind.	18	12	4	2	-	-	-
Grand Rapids, Mich.	91	64	13	5	5	4	8
Indianapolis, Ind.	171	111	38	5	8	9	-
Madison, Wis.	41	25	7	6	3	-	2
Milwaukee, Wis.	134	88	28	27	8	3	-
Peoria, Ill.	39	24	9	-	-	6	2
Rockford, Ill.	43	34	5	1	-	3	2
South Bend, Ind.	54	45	7	2	-	-	2
Toledo, Ohio	121	80	28	8	3	2	6
Youngstown, Ohio	60	42	16	-	2	-	-
W.N. CENTRAL	784	546	138	53	19	27	36
Des Moines, Iowa	72	55	12	3	1	1	1
Duluth, Minn.	17	10	4	-	-	3	3
Kansas City, Kans.	37	26	6	1	3	1	-
Kansas City, Mo.	105	66	22	12	3	2	4
Lincoln, Nebr.	42	35	4	3	-	-	6
Minneapolis, Minn.	167	111	32	17	2	4	5
Omaha, Nebr.	96	72	12	5	4	3	5
St. Louis, Mo.	127	92	19	7	1	8	5
St. Paul, Minn.	53	37	10	4	1	1	2
Wichita, Kans.	68	42	17	1	4	4	5
S. ATLANTIC	1,160	757	230	109	30	34	40
Atlanta, Ga.	149	88	26	29	1	5	1
Baltimore, Md.	264	171	57	24	4	8	12
Charlotte, N.C.	67	42	14	5	2	4	3
Jacksonville, Fla.	92	59	21	6	4	2	7
Miami, Fla.	116	72	25	12	4	3	1
Norfolk, Va.	48	27	13	2	4	2	3
Richmond, Va.	61	48	7	1	2	3	2
Savannah, Ga.	36	24	8	4	-	-	-
St. Petersburg, Fla.	104	89	12	2	-	1	4
Tampa, Fla.	69	48	11	6	2	2	3
Washington, D.C.	128	71	32	15	6	4	4
Wilmington, Del.	26	18	4	3	1	-	-
E.S. CENTRAL	792	484	186	67	26	29	23
Birmingham, Ala.	112	68	27	13	6	8	-
Chattanooga, Tenn.	60	43	13	4	-	-	3
Knoxville, Tenn.	79	46	18	7	4	4	2
Louisville, Ky.	125	78	35	6	3	3	8
Memphis, Tenn.	163	107	37	11	4	4	3
Mobile, Ala.	80	44	18	15	1	2	2
Montgomery, Ala.	49	31	12	2	1	3	-
Nashville, Tenn.	124	77	26	9	7	5	5
W.S. CENTRAL	1,357	812	318	124	50	53	53
Austin, Tex.	64	29	22	8	3	2	1
Baton Rouge, La.	55	33	13	4	3	2	2
Corpus Christi, Tex.	53	31	15	3	1	3	-
Dallas, Tex.	232	137	64	17	12	12	5
El Paso, Tex.	86	53	21	7	2	3	8
Fort Worth, Tex.	85	54	10	8	4	9	7
Houston, Tex.	291	166	70	33	10	12	5
Little Rock, Ark.	51	27	17	4	1	2	3
New Orleans, La.	125	80	22	16	3	4	-
San Antonio, Tex.	168	112	37	13	5	1	14
Shreveport, La.	71	44	17	4	3	3	3
Tulsa, Okla.	76	46	20	7	3	-	5
MOUNTAIN	636	390	139	57	25	25	33
Albuquerque, N.Mex.	82	52	18	8	4	2	6
Colo. Springs, Colo.	47	30	11	1	5	-	9
Denver, Colo.	115	59	29	14	6	7	3
Las Vegas, Nev.	60	38	18	3	1	-	1
Ogden, Utah	15	14	1	-	-	-	-
Phoenix, Ariz.	144	84	32	15	5	8	5
Pueblo, Colo.	19	13	5	1	-	-	1
Salt Lake City, Utah	47	28	8	5	-	6	2
Tucson, Ariz.	107	72	19	10	4	2	6
PACIFIC	2,102	1,371	399	189	68	63	145
Berkeley, Calif.	24	16	5	2	-	1	3
Fresno, Calif.	77	46	16	10	2	2	7
Glendale, Calif.	38	31	3	2	1	1	4
Honolulu, Hawaii	75	55	9	6	-	5	10
Long Beach, Calif.	81	48	22	6	1	4	6
Los Angeles, Calif.	698	443	139	65	28	14	28
Oakland, Calif.	85	51	20	7	5	2	4
Pasadena, Calif.	32	22	7	-	1	2	4
Portland, Oreg.	149	109	19	9	6	6	8
Sacramento, Calif.	137	97	21	14	2	3	19
San Diego, Calif.	155	91	32	18	8	4	16
San Francisco, Calif.	139	88	26	20	2	3	4
San Jose, Calif.	175	115	37	13	4	6	14
Seattle, Wash.	148	96	30	10	5	7	9
Spokane, Wash.	52	36	8	3	3	2	8
Tacoma, Wash.	37	27	5	4	-	1	1
TOTAL	12,645††	8,150	2,667	1,053	362	399	608

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*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza.

†Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§Data not available. Figures are estimates based on average of past 4 weeks.

Epidemiologic Notes and Reports

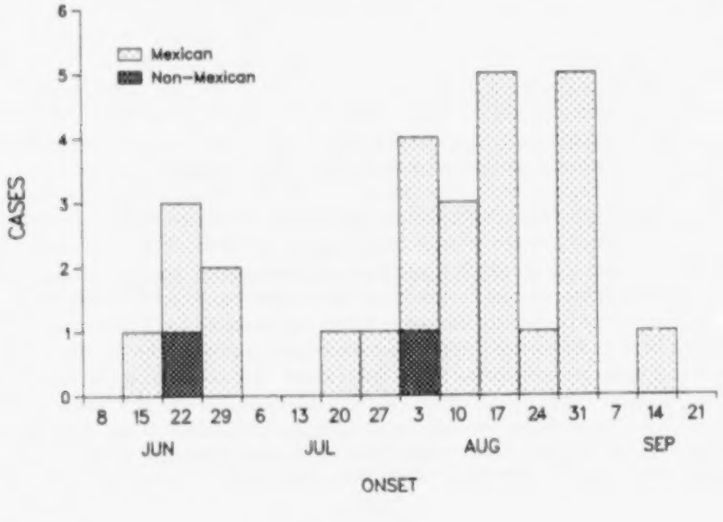
Plasmodium Vivax Malaria — San Diego County, California, 1986

Two clusters of malaria involving 27 patients were identified in San Diego, California, in the period August 8-September 30, 1986. The initial patient identified (Patient A) in the outbreak was a 58-year-old resident of Carlsbad, a coastal community of 35,000 in San Diego County, who was seen by his local physician because of high fever and diarrhea. He was initially diagnosed as having a viral illness, but when his symptoms worsened on August 11, he was admitted to a local hospital. Three days later a blood smear was positive for *Plasmodium vivax* malaria. Treatment with chloroquine and primaquine led to his recovering without complications. He had no history of intravenous drug use, blood transfusion, or travel to areas with endemic malaria. The patient lives in a residential area across the street from a marsh that empties into a salt-water lagoon, and in July he took frequent evening walks through the marsh area.

In response to this report of *P. vivax* malaria in the area, on August 16 an effort was begun to identify all cases of malaria reported in San Diego County since January 1, 1986. The San Diego County Health Department records were reviewed, and local hospitals and physicians were contacted to detect unreported cases. As a result, an additional 26 cases of *P. vivax* (smear-positive) malaria were identified as having occurred in the Carlsbad area in the period June 18-September 20. The epidemic curve shows a bimodal distribution with a 24-day interval between the two clusters (Figure 2).

The first cluster of cases involved six patients who became ill between June 18 and July 2 and were identified as five Mexican migrant agricultural workers and one San Diego County

FIGURE 2. Cases of Plasmodium vivax malaria, by week of symptom onset — San Diego County, California, June 8—September 21, 1986



Malaria – Continued

resident who lived 20 miles from Carlsbad. This 30-year-old male (Patient B) had gone swimming on May 31 and June 7 in a lake 3 miles southeast of the lagoon area frequented by Patient A during his evening walks. In September 1985, Patient B had traveled to an area north of Puerto Vallarta, Mexico, where he slept on the beach. He denied any previous malaria infection, intravenous drug use, or blood transfusion.

The second cluster of cases involved 21 patients who became ill between July 26 and September 20 and were identified as 20 Mexican migrant workers and the local Carlsbad resident (Patient A) discussed above. Twenty of the 25 infections involving Mexican migrant workers from both time periods were reported by the same local hospital. The other five were diagnosed during an active case-detection survey involving interviews with 319 migrant workers on the three agricultural farms in the lagoon area.

Eighteen of the migrant-worker patients were interviewed. None of them had a history of intravenous drug use or blood transfusion, and only one had a history of malaria infection. All were males 17-30 years of age. They were employed in a variety of work situations, came from five different states in Mexico, and had arrived in the United States 2 weeks-20 months before becoming ill. Eleven of these patients had been in the United States at least 2 months.

On August 14, a baited light trap placed in the marsh area was found to contain 115 adult female *Anopheles freeborni* mosquitoes, a competent vector of malaria. On August 18, after the San Diego County Vector Surveillance Unit had applied adulticide/larvicide to the area, a baited light trap placed in the area contained 16 adult female *An. freeborni*. No *An. freeborni* were found in the trap on August 22, and subsequent trapping efforts led to counts of 0-10 *An. freeborni* per light trap in the marsh area.

Reported by J Turley, Tri-City Hospital, Oceanside, E Orellana, S Hunt, M Mizrahi, MS, M Ginsberg, MD, M Thompson, DrPH, G Reaser, MD, D Ramras, MD, San Diego County Dept of Health Svcs, T Smith, MS, Vector Surveillance and Control Br, R R Roberto, MD, Infectious Disease Br, California Dept of Health Svcs; Div of Field Svcs, Epidemiology Program Office, Malaria Br, Div of Parasitic Diseases, Center for Infectious Diseases, CDC.

Editorial Note: This two-cluster outbreak of *P. vivax* malaria involving 27 patients and occurring within a 14-week period represents an unusually high number of reported cases of malaria in San Diego County in such a short time. That is, in all of calendar year 1985, only 20 cases of imported malaria among civilians were reported to the San Diego County Health Department. From January through August 1986, only two cases in addition to the outbreak described here were reported among civilians in San Diego County. One of these cases represented importation from India, and the other, from Papua New Guinea.

Some or all of the 27 cases of *P. vivax* malaria in these two clusters were acquired by local transmission in San Diego County. For example, the *P. vivax* infection of Patient A, who had no other identified risk factors, indicates local transmission. Furthermore, the occurrence of two clusters in time and space suggests that some of the cases among Mexican migrant workers represent *P. vivax* infection acquired in the marsh area rather than imported from Mexico. Data from the vector surveillance indicate that adult female *An. freeborni* were present in large numbers in the lagoon area during the period that transmission occurred. The 24-day interval between the two clusters is consistent with the time required for development of the parasite in the infected mosquito (range 11-20 days) and the incubation period of *P. vivax* in humans (12-17 days) (*1*). Furthermore, the case investigations indicated that the common factor shared by the Mexican migrant patients was that they all slept in the open on a hillside bordering the marsh.

Malaria – Continued

This represents the largest outbreak of introduced malaria* in the United States since 1952 (*2*). Only 14 isolated episodes of introduced malaria have been reported in the United States since 1950, despite periodic increases in the number of imported malaria cases in the same period. Seven of these 14 episodes occurred in California. In the period 1966-1971, there were 16,872 reported cases of malaria imported by American military personnel returning from Southeast Asia. In the same period, only three episodes of introduced malaria could be related to Vietnam veterans (*3*). In 1979-1981, there were 1,571 cases of malaria reported among refugees from areas of Southeast Asia with endemic malaria. No cases of introduced malaria have been attributed to this influx of immigrants (*4*). However, the outbreak of introduced malaria described in this report may be related to the increased importation of malaria by migrant workers from Mexico who do not have authorization papers and may therefore be reluctant to seek medical care. The number of cases of malaria imported from Mexico into California rose from 20 in 1983 to 75 in 1985. In Mexico the number of reported malaria cases has doubled in the past 4 reporting years—from 42,104 in 1981 to 85,501 in 1984 (*5*).

Introduced malaria is quite rare in the United States despite the presence of competent anopheline vectors in California (*An. freeborni*), the states that border Mexico, and the entire Southeast (*An. quadrimaculatus*) during the warmer months. Transmission of malaria requires that a susceptible female mosquito feed on an infected person. The mosquito must survive long enough to allow the parasite to mature and then must find an available host to infect. In the United States, the likelihood that this sequence of events will occur is low. In Carlsbad, the influx of carriers of malaria parasites into an area with a susceptible population and large numbers of competent mosquito vectors created the rare juxtaposition of events required for a malaria outbreak.

If Patient A's malaria infection had not been diagnosed and reported, some of the locally acquired *P. vivax* infections among the Mexican migrants might not have been recognized. Medical personnel should be aware that introduced malaria may affect a susceptible population of migrant workers, as well as the resident population. A complete history of recent travel, malaria infection, time of arrival in the United States, intravenous drug use, and blood transfusion should be obtained. Regardless of the characteristics of the population of patients, a cluster of malaria cases should trigger an investigation to determine whether local transmission has occurred. Prompt reporting of malaria cases will assist in assuring that introduced malaria does not grow to be a substantial public health threat in the United States.

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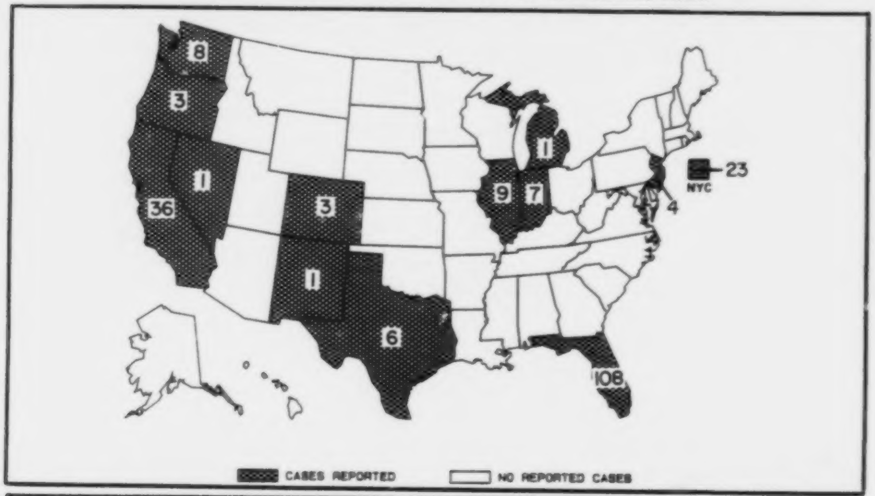
*Defined as malaria acquired by mosquito transmission in an area in which malaria does not occur regularly.

FIGURE I. Reported measles cases — United States, weeks 39-42, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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CENTERS FOR DISEASE CONTROL

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MORBIDITY AND MORTALITY WEEKLY REPORT

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Epidemiologic Notes and Reports

Update: Influenza Activity — Micronesia, United States

During the summer months, outbreaks of influenza types A(H1N1) and B were reported from south pacific islands. Several sporadic cases of influenza A(H1N1) also were reported from Hawaii during that time period. In October, the first sporadic cases of influenza A(H1N1) were reported from the contiguous United States.

Micronesia. Widespread outbreak activity was reported from Micronesia for the period May through August. In the Republic of Palau, outbreaks were associated with circulation of influenza types A(H1N1) and B. Rises in titer of hemagglutination-inhibition antibody in sera collected from 101 persons in 1985 and 1986 were measured to determine the incidence of influenza virus infection. Thirty-six (51%) of 70 persons <35 years of age had influenza A(H1N1) infections compared with 4 (13%) of 31 persons ≥35. The three type A(H1N1) viruses that were isolated were all similar to A/Taiwan/86. For influenza B virus, the serologically diagnosed infection rates were 36 (51%) and 10 (32%) in the same age groups. Thirty-four (34%) had no titer rise to either type of influenza. The incidence and characteristics of clinical illness associated with serologic evidence of infection could not be determined. Type A(H1N1) influenza was also isolated in the Republic of the Marshall Islands.

Hawaii. Two type A(H1N1) influenza virus isolates, both similar to A/Taiwan/86, have been reported from Hawaii. Serologic evidence of type A(H1N1) virus infection was detected for a third person. The patients were 20, 23, and 43 years of age, and onset of illnesses occurred in June and August.

New York. In Syracuse, influenza virus type A(H1N1), similar to A/Taiwan/86 on preliminary testing, was isolated from a 17-year-old student who was ill during mid-September.

Texas. In early to mid-October, three influenza A(H1N1) viruses were isolated in association with sporadic influenza cases in Houston. All three isolates were from children <12 years of age.

Reported by M Kumangai, MD, Bureau of Health Svcs, Republic of Palau; MJ O'Leary, MD, MPH, Federated States of Micronesia; G Kobayashi, G Kunimoto, C Nevin-Woods, DO, A Tanaguchi, MD, SMD Terrell-Perica, MA, MPH, AP Liang, MD, MPH, State Epidemiologist, Hawaii Dept of Health; BE Forbes, MD, Upstate Medical Center, Syracuse, J Miller, MD, Onondaga County Health Dept, R Deibel, PhD, D Carpenter, MD, DL Morse, MD, State Epidemiologist, New York State Dept of Health; Influenza Research Center, Baylor College of Medicine, Houston, CE Alexander, MD, State Epidemiologist, Texas Dept of Health; International Health Program Office, Div of Immunization, Center for Prevention Svcs, WHO Collaborating Center for Influenza, Influenza Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES / PUBLIC HEALTH SERVICE

HE 20.7009:

Influenza Activity — Continued

Editorial Note: These are the first reports of influenza virus isolates in Micronesia and the United States this season. The influenza A(H1N1) isolates obtained from both Hawaii and New York resemble A/Taiwan/86(H1N1), a new variant strain of influenza A(H1N1) (*1*). No influenza outbreaks have been reported in the United States. Although the initial isolates reported have all been type A(H1N1), neither the extent of influenza activity, if any, nor which influenza virus strains may circulate in the United States this season can be predicted. While it may not be appropriate to extrapolate the findings from Palau to the United States, the results of the Palau serologic survey are consistent with previous reports from Asia (*1,2*) indicating that contemporary strains of influenza A(H1N1) are affecting children and young adults primarily.

In addition to a trivalent inactivated influenza vaccine recommended for all high-risk persons, a supplemental vaccine containing the A/Taiwan/86 strain will be available this year in the United States. Recommendations for usage of both vaccines have been published (*3,4*). Production of a supplemental vaccine was possible because of early detection of the A/Taiwan/86 variant and is intended to optimize protection, particularly for high-risk persons <35 years of age. At present, the trivalent vaccine is widely available. This vaccine contains updated A(H3N2) and B strains and also an A(H1N1) component that may provide partial protection against the new A(H1N1) variants. The Food and Drug Administration released the first lots of monovalent vaccine in late October, and it should be available shortly through normal distribution channels*.

Key points to bear in mind regarding recommendations for influenza vaccine administration and treatment of influenza include:

1) High-risk persons of all ages should receive the standard trivalent vaccine according to previously published Immunization Practices Advisory Committee recommendations.
2) The Public Health Service (PHS) urges health care personnel who treat high-risk children or high-risk adults <35 years of age to provide both trivalent and supplemental A(H1N1) influenza vaccines to their patients.
3) Vaccination with the trivalent vaccine should not be delayed if the supplemental vaccine is not available at the time the trivalent vaccine would normally be given.
4) Supplemental vaccination is of potential benefit to many other groups of young persons to reduce morbidity if A(H1N1) outbreaks occur. The potential for introducing influenza to high-risk patients could be reduced by vaccinating young adult parents and siblings of high-risk children; young health care personnel who provide care for young, high-risk patients; and young employees who perform essential services in the public or private sector.
5) There is no special emphasis by the PHS to provide the supplemental vaccine to adults ≥35 years of age. However, it may be used in this group either as an added precaution, if the physician and patient so desire, or on the basis of institutional or other local policy decisions.
6) Aspirin use during influenza, influenza-like illnesses, and chickenpox has been associated with Reye syndrome (*5*), a rare but serious disease. Therefore, the PHS warns that children and teenagers ≤18 years of age should not use aspirin for the treatment of these illnesses (*6*).

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*Product information about influenza vaccines can be obtained from the following manufacturers: Connaught: (800) 538-7678 (distribution to pediatricians only); Squibb: (609) 921-4071 (Squibb handles distribution of Connaught vaccine to all others); Parke-Davis: (800) 223-0432; Wyeth: (800) 321-2304.

Influenza Activity – Continued

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Cholera in Louisiana — Update

Since mid-August 1986, 12 cases of cholera have been identified among residents of Louisiana. The cases occurred in nine families living in New Orleans and in other towns in six parishes (Jefferson, LaFourche, Assumption, St. Mary, Iberia, and Jefferson Davis) within a 200-mile radius to the south and west of New Orleans. None of the patients had traveled abroad within the past year.

Onset of symptoms occurred between August 8 and October 1. Ten of the patients had severe diarrhea, seven required hospitalization, and four required treatment in an intensive care unit for hypotension. All patients recovered following intravenous fluid therapy. Seven patients had stool cultures yielding toxigenic *Vibrio cholerae* O1, biotype El Tor, serotype Inaba. The remaining five patients did not have stool cultures performed but had vibriocidal antibody titers greater than or equal to 1280, suggesting recent infection with *V. cholerae* O1.

Sewer system surveillance using Moore swabs has detected toxigenic *V. cholerae* O1 in sewage in eight separate sites in southern Louisiana (three in Jefferson Parish, one in Orleans Parish, one in St. Tammany Parish, one in Iberia Parish, and two in Jefferson Davis Parish). Five of these sites are in towns without a clinically identified case of cholera.

Although no common source has been identified, eleven of the patients reported eating crabs or shrimp within 5 days before the onset of symptoms. The seafoods were harvested from multiple sites in a wide area along the Louisiana coast of the Gulf of Mexico. Surveillance is continuing, and further epidemiologic studies are underway.

Reported by L McFarland, DrPH, HB Bradford, PhD, J Mathison, MD, State Epidemiologist, Louisiana Dept of Health and Human Resources; Enteric Diseases Br, Div of Bacterial Diseases, Center for Infectious Diseases, Div of Field Svcs, Epidemiology Program Office, CDC.

Editorial Note: Thirteen cases of domestically acquired cholera (one involving a Florida patient [*1*]) have been detected near the U.S. Gulf coast so far during 1986. Past studies of El Tor *V. cholerae* infections in both endemic and non-endemic countries indicate that many mild or clinically inapparent infections occur for every hospitalized patient (*2*). The detection of toxigenic *V. cholerae* O1 in the sewer systems of several towns with no identified cases suggests that undetected cases have occurred in Louisiana.

The source of infection, as in 1978 in Louisiana (*3*), appears to be crustacea. Because seafood from the Gulf Coast is shipped to many states, even physicians located far from the Gulf should consider the possibility of cholera when a patient has severe, watery diarrhea. Diagnosis is confirmed by the isolation of *V. cholerae* O1 from stool culture, preferably on thiosulfate-citrate-bile salts-sucrose (TCBS) agar. Isolates of *V. cholerae* should be serotyped and tested for toxin production through state public health laboratories, and all cases should be reported immediately to the state epidemiologist.

In this outbreak, inadequate cooking or improper handling of crustacea appeared to play a significant role in the development of *V. cholerae* O1 infection. Thoroughly cooking potentially contaminated food and then carefully handling and storing cooked food will prevent foodborne cholera. (*V. cholerae* O1 has been shown to survive in crabs boiled for 8 minutes, but not in crabs boiled for 10 minutes [*3*]).

Cholera – Continued

Vigorous rehydration (preferably with Ringer's lactate) and careful correction of electrolyte and acid-base disturbances are the mainstays of therapy and result in very low mortality rates among hospitalized patients. Tetracycline shortens the duration of symptoms and the period of fecal shedding of the organism (*4*).

References

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TABLE I. Summary—cases specified notifiable diseases, United States

Disease	44th Week Ending			Cumulative, 44th Week Ending		
	Nov. 1, 1986	Nov. 2, 1985	Median 1981-1985	Nov. 1, 1986	Nov. 2, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	376	124	N	11,152	6,661	N
Aseptic meningitis	272	308	268	8,710	8,768	8,259
Encephalitis: Primary (arthropod-borne & unspec.)	28	37	37	1,028	1,118	1,305
Post-infectious	-	2	2	85	110	80
Gonorrhea: Civilian	18,211	17,568	18,182	749,432	753,158	764,479
Military	314	261	329	14,210	17,867	20,592
Hepatitis: Type A	467	580	455	18,943	19,222	19,222
Type B	432	553	553	21,598	21,999	20,221
Non A, Non B	72	94	N	2,963	3,508	N
Unspecified	60	133	133	3,757	4,882	6,196
Legionellosis	30	24	N	642	643	N
Leprosy	9	17	3	212	312	205
Malaria	6	19	19	957	885	885
Measles: Total*	68	23	14	5,752	2,606	2,434
Indigenous	63	23	N	5,455	2,178	N
Imported	5	-	N	297	428	N
Meningococcal infections: Total	51	49	49	2,075	2,022	2,322
Civilian	51	48	48	2,073	2,015	2,307
Military	-	1	-	2	7	11
Mumps	92	55	66	4,324	2,530	2,809
Pertussis	285	77	31	3,755	2,972	2,034
Rubella (German measles)	6	5	8	450	583	863
Syphilis (Primary & Secondary): Civilian	739	502	679	22,728	22,791	26,181
Military	1	1	6	139	143	329
Toxic Shock syndrome	9	7	N	293	321	N
Tuberculosis	354	488	488	18,442	18,024	19,777
Tularemia	5	1	5	131	159	236
Typhoid fever	8	5	6	264	322	337
Typhus fever, tick-borne (RMSF)	15	10	10	722	653	933
Rabies, animal	92	107	107	4,652	4,617	5,299

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1986		Cum. 1986
Anthrax	-	Leptospirosis (Tex. 1)	28
Botulism: Foodborne (Utah 1)	13	Plague	7
Infant (Del. 1, Tex. 2)	43	Poliomyelitis, Paralytic	1
Other	1	Psittacosis (Del. 1, Calif. 2)	84
Brucellosis (Md. 1, Fla. 1, Tex. 1)	75	Rabies, human	-
Cholera	3	Tetanus	57
Congenital rubella syndrome	10	Trichinosis	31
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	44
Diphtheria	-		

*Two of the 68 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending November 1, 1986, and November 2, 1985 (44th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	11,152	272	1,028	85	749,432	753,158	467	432	72	60	30	212
NEW ENGLAND	432	4	24	3	19,843	19,216	16	29	3	5	11	7
Maine	18	-	-	-	750	979	2	4	-	-	1	-
N H	10	-	2	-	515	486	-	-	-	-	-	-
Vt	4	1	4	2	233	282	-	1	-	-	-	-
Mass	237	-	5	-	7,401	7,898	2	9	-	5	2	7
R I	28	1	-	-	1,539	1,517	2	5	2	-	8	-
Conn	135	2	13	1	9,405	8,054	10	10	1	-	-	-
MID ATLANTIC	4,042	29	94	7	126,697	109,349	26	30	2	1	-	14
Upstate N Y	428	9	33	4	15,553	15,313	4	8	1	-	-	1
N Y City	2,732	U	18	-	72,315	53,766	U	U	U	U	U	12
N J	615	3	10	-	16,498	16,312	11	13	1	1	-	-
Pa	267	17	33	3	22,331	23,958	11	9	-	-	-	1
E N CENTRAL	667	65	315	11	98,177	99,508	23	53	7	1	8	5
Ohio	154	39	125	3	24,999	26,614	3	14	1	1	7	-
Ind	59	8	75	3	10,617	11,061	1	10	1	-	-	-
Ill	302	3	44	4	24,079	23,832	12	12	5	-	-	4
Mich	116	15	49	1	31,476	28,398	7	17	-	-	1	1
Wis	36	-	22	-	7,006	9,603	-	-	-	-	-	-
W N CENTRAL	206	10	70	9	32,526	35,185	4	10	6	-	1	4
Minn	72	4	31	-	4,603	5,246	1	-	4	-	1	2
Iowa	18	1	21	-	3,337	3,715	2	2	2	-	-	-
Mo	71	5	1	-	16,131	16,939	-	6	-	-	-	-
N Dak	2	-	4	-	277	240	-	-	-	-	-	-
S Dak	2	-	11	-	682	676	-	1	-	-	-	-
Nebr	11		-	1	2,477	3,030	-	-	-	-	-	-
Kans	30	-	2	8	5,019	5,339	1	1	-	-	-	2
S ATLANTIC	1,573	58	135	32	194,810	196,757	42	107	16	5	3	2
Del	20	2	6	-	3,263	3,777	1	4	1	-	-	-
Md	159	10	29	1	22,747	24,889	1	11	-	-	2	-
D C	195	-	-	1	14,331	13,273	-	-	-	-	-	-
Va	129	19	36	1	16,041	16,512	4	15	3	3	-	1
W Va	7	2	45	-	1,888	2,231	1	2	-	-	-	-
N C	65	3	17	2	30,131	31,209	4	15	2	1	-	-
S C	39	-	-	-	16,778	18,747	-	6	1	-	-	-
Ga	235	5	-	1	32,252	38,491	-	5	1	-	-	-
Fla	724	17	2	26	57,379	47,628	31	49	8	1	1	1
E S CENTRAL	134	31	60	4	60,554	65,033	8	35	4	1	-	1
Ky	25	7	30	1	6,681	7,443	2	11	3	1	-	-
Tenn	66	5	7	1	23,032	24,851	2	14	-	-	-	-
Ala	25	4	22	2	17,694	19,452	-	6	-	-	-	1
Miss	18	15	1	-	13,147	13,287	4	4	1	-	-	-
W S CENTRAL	1,052	32	157	6	88,512	95,011	78	32	10	13	1	19
Ark	27	-	-	2	8,525	9,109	-	-	-	-	-	1
La	135	-	9	-	15,633	18,122	-	2	-	-	-	1
Okla	39	3	20	-	10,088	10,601	12	3	1	-	-	-
Tex	851	29	128	4	54,266	57,179	66	27	9	13	1	17
MOUNTAIN	281	11	35	1	22,261	23,700	59	35	5	5	2	13
Mont	4	1	1	1	586	678	-	1	-	1	-	-
Idaho	3	-	-	-	766	824	3	1	-	-	-	-
Wyo	4	-	2	-	467	542	1	1	-	-	-	-
Colo	132	2	4	-	5,713	6,891	7	3	-	1	-	3
N Mex	21	-	3	-	2,326	2,888	12	3	-	-	-	-
Ariz	71	6	17	-	7,197	7,032	34	18	3	1	2	7
Utah	17	2	6	-	942	1,146	1	1	-	2	-	1
Nev	29	-	2	-	4,264	3,899	1	7	2	-	-	2
PACIFIC	2,765	32	138	12	106,052	109,399	211	101	19	29	4	147
Wash	148	2	11	-	7,813	8,581	14	9	3	1	-	17
Oreg	52	-	-	-	4,507	5,526	38	15	3	-	-	-
Calif	2,510	28	120	12	90,334	91,181	157	74	12	24	4	101
Alaska	12	-	6	-	2,316	2,632	2	1	1	4	-	-
Hawaii	43	2	1	-	1,082	1,479	-	2	-	-	-	29
Guam	-	U	-	-	172	169	U	U	U	U	U	1
P R	77	-	5	1	2,074	2,680	1	1	-	1	-	7
V I	3	-	-	-	238	356	-	-	-	-	-	-
Pac Trust Terr	-	-	-	-	413	766	1	-	-	-	-	43
Amer Samoa	-	-	-	-	46	-	-	-	-	-	-	2

N Not notifiable   U Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 1, 1986, and November 2, 1985 (44th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	957	63	5,455	5	297	2,606	2,075	92	4,324	285	3,755	2,972	6	450	583
NEW ENGLAND	60	-	82	-	21	126	143	-	60	-	144	190	-	9	12
Maine	2	-	12	-	1	1	25	-	-	-	2	9	-	-	-
N H	3	-	43	-	-	-	6	-	14	-	75	105	-	1	2
Vt	2	-	-	-	-	-	17	-	4	-	3	3	-	1	-
Mass	32	-	24	-	13	118	36	-	10	-	34	46	-	4	6
R I	7	-	2	-	-	-	19	-	10	-	6	19	-	2	-
Conn	14	-	1	-	7	7	40	-	22	-	24	8	-	1	4
MID ATLANTIC	133	-	1,686	1	34	224	333	1	182	4	184	197	1	36	221
Upstate N Y	45	-	77	1†	24	85	113	-	60	2	118	101	-	27	17
N Y City	29	U	682	U	4	71	68	U	29	U	10	25	U	5	179
N J	34	-	905	-	4	28	30	-	46	-	17	11	1	4	11
Pa	25	-	22	-	2	40	122	1	47	2	39	60	-	-	14
E N CENTRAL	58	-	1,053	-	28	535	290	65	2,936	16	356	714	-	45	37
Ohio	18	-	-	-	10	60	119	6	122	13	159	96	-	1	-
Ind	2	-	27	-	11	57	31	1	37	3	29	188	-	-	1
Ill	16	-	689	-	4	299	70	34	2,237	-	36	69	-	34	19
Mich	18	-	59	-	-	60	61	21	308	-	35	46	-	8	16
Wis	4	-	278	-	3	59	9	3	232	-	97	315	-	2	1
W N CENTRAL	29	-	322	-	17	12	101	2	115	229	1,370	213	-	13	19
Minn	8	-	45	-	4	6	21	-	1	-	51	107	-	1	2
Iowa	1	-	133	-	1	-	11	2	36	-	19	28	-	1	1
Mo	11	-	25	-	6	3	35	-	21	1	20	29	-	1	7
N Dak	-	-	25	-	1	2	1	-	3	-	5	9	-	1	2
S Dak	2	-	-	-	-	-	5	-	1	-	14	3	-	-	-
Nebr	4	-	-	-	-	-	11	-	-	-	7	9	-	-	-
Kans	3	-	94	-	5	1	17	-	53	228	1,254	28	-	9	7
S ATLANTIC	114	22	685	-	55	329	378	7	213	12	719	485	-	14	52
Del	1	-	1	-	-	-	4	-	-	-	227	2	-	-	2
Md	14	-	26	-	9	113	45	1	20	-	163	276	-	-	6
D C	3	-	-	-	1	31	5	-	-	-	-	-	-	-	-
Va	30	-	36	-	24	28	66	3	41	3	39	17	-	-	2
W Va	4	-	2	-	-	33	3	-	48	-	23	4	-	-	9
N C	5	-	3	-	1	9	61	1	22	5	73	30	-	-	1
S C	6	-	274	-	-	3	41	1	13	-	18	2	-	-	3
Ga	12	-	79	-	14	8	54	-	28	-	129	92	-	-	-
Fla	39	22	264	-	6	104	99	1	41	4	47	62	-	14	29
E S CENTRAL	19	-	58	3	12	7	109	3	46	-	47	55	-	4	3
Ky	5	-	-	-	6	5	24	-	6	-	5	8	-	4	3
Tenn	1	-	55	-	1	1	37	3	35	-	16	24	-	-	-
Ala	9	-	1	-	1	-	35	-	4	-	25	19	-	-	-
Miss	4	-	2	3§	4	1	13	-	1	-	1	4	-	-	-
W S CENTRAL	95	38	680	-	38	436	189	3	219	-	231	488	1	64	37
Ark	1	-	276	-	2	-	27	-	33	-	18	14	-	-	1
La	17	-	4	-	-	42	25	-	3	-	13	15	-	-	-
Okla	10	-	37	-	2	1	28	N	N	-	117	163	-	-	1
Tex	67	38	363	-	34	393	109	3	183	-	83	296	1	64	35
MOUNTAIN	31	-	302	-	29	539	100	2	237	13	255	206	-	23	6
Mont	-	-	-	-	8	137	10	-	5	1	15	9	-	2	-
Idaho	1	-	1	-	-	137	4	-	8	1	42	15	-	-	2
Wyo	-	-	-	-	-	5	2	-	-	-	4	-	-	1	-
Colo	8	-	2	-	8	13	17	-	14	1	66	81	-	1	-
N Mex	5	-	33	-	7	6	9	N	N	-	20	11	-	-	2
Ariz	11	-	252	-	6	241	22	1	187	9	65	38	-	2	1
Utah	3	-	12	-	-	-	10	1	15	1	39	52	-	14	-
Nev	3	-	2	-	-	-	26	-	8	-	4	-	-	3	1
PACIFIC	418	3	587	1	63	398	432	9	316	11	449	424	4	242	196
Wash	28	-	139	-	28	122	58	1	15	2	141	75	-	17	14
Oreg	15	-	7	-	4	5	32	N	N	-	12	44	-	4	1
Calif	374	2	413	1†	30	247	319	8	275	9	280	258	3	215	132
Alaska	-	-	-	-	-	-	13	-	6	-	2	30	-	-	1
Hawaii	1	1	28	-	1	24	10	-	20	-	14	17	1	6	48
Guam	1	U	4	U	1	11	-	U	4	U	-	-	U	4	2
P R	4	-	36	-	-	63	3	1	33	-	19	11	-	62	27
V I	-	-	-	-	-	10	-	-	16	-	-	-	-	-	-
Pac Trust Terr	-	-	-	-	-	-	1	-	11	-	-	-	-	2	-
Amer Samoa	-	-	2	-	-	-	-	-	5	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations

N Not notifiable U Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 1, 1986, and November 2, 1985 (44th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tularemia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	22,728	22,791	9	18,442	18,024	131	264	722	4,652
NEW ENGLAND	411	498	-	605	620	1	16	13	8
Maine	19	13	-	34	40	-	-	-	-
N H	10	36	-	23	20	-	-	2	1
Vt	9	6	-	16	7	-	-	-	2
Mass	215	248	-	335	370	1	13	4	-
R I	19	14	-	42	47	-	-	3	3
Conn	139	181	-	155	136	-	3	4	2
MID ATLANTIC	3,167	3,090	-	3,622	3,254	1	22	34	593
Upstate N Y	159	234	-	515	569	-	4	19	76
N Y City	1,755	1,871	U	1,884	1,569	-	9	5	-
N J	567	598	-	621	456	1	8	2	17
Pa	686	387	-	602	660	-	1	8	500
E N CENTRAL	812	870	-	2,214	2,187	-	22	54	129
Ohio	110	128	-	387	374	-	8	48	14
Ind	98	74	-	238	271	-	2	-	17
Ill	363	400	-	944	960	-	3	2	38
Mich	144	210	-	545	459	-	6	4	24
Wis	97	58	-	100	123	-	3	-	36
W N CENTRAL	180	195	-	548	499	38	9	49	709
Minn	29	39	-	130	107	-	2	1	112
Iowa	7	18	-	46	51	1	-	1	163
Mo	94	104	-	265	239	29	6	25	67
N Dak	5	2	-	9	10	-	-	1	144
S Dak	9	6	-	25	27	3	-	6	141
Nebr	11	7	-	12	15	1	-	6	29
Kans	25	19	-	61	50	4	1	9	53
S ATLANTIC	6,852	6,576	-	3,675	3,671	9	44	327	1,169
Del	52	34	-	39	39	-	1	1	1
Md	381	413	-	275	330	2	15	29	528
D C	255	286	-	136	133	1	4	-	31
Va	302	256	-	303	357	2	10	52	171
W Va	19	22	-	108	93	-	3	10	46
N C	439	591	-	503	470	1	4	124	9
S C	596	691	-	470	451	-	-	70	60
Ga	1,275	1,175	-	613	612	3	-	39	176
Fla	3,533	3,108	-	1,228	1,186	-	7	2	147
E S CENTRAL	1,579	1,760	-	1,648	1,579	12	3	107	313
Ky	61	59	-	369	383	4	-	22	91
Tenn	528	528	-	487	470	6	1	43	109
Ala	449	571	-	516	464	1	1	24	111
Miss	541	602	-	276	262	1	1	18	2
W S CENTRAL	4,508	5,273	1	2,303	2,326	57	23	127	641
Ark	214	284	-	315	274	40	-	10	147
La	785	939	-	378	335	1	1	-	19
Okla	120	168	-	215	220	11	2	100	57
Tex	3,389	3,882	1	1,395	1,497	5	20	17	418
MOUNTAIN	519	621	1	441	471	10	15	10	603
Mont	6	6	-	24	46	1	1	4	194
Idaho	13	5	-	20	22	-	-	2	9
Wyo	2	7	-	-	5	-	-	1	252
Colo	118	156	-	40	68	3	1	3	29
N Mex	62	112	-	86	76	1	1	-	6
Ariz	219	273	1	208	214	-	8	-	95
Utah	18	8	-	30	12	4	3	-	7
Nev	81	54	-	33	28	1	1	-	11
PACIFIC	4,700	3,908	7	3,386	3,417	3	110	1	487
Wash	120	97	1	176	198	1	3	-	5
Oreg	100	88	-	110	115	-	-	-	1
Calif	4,448	3,663	6	2,902	2,854	1	102	1	473
Alaska	1	4	-	46	89	1	1	-	8
Hawaii	31	56	-	152	161	-	4	-	-
Guam	1	2	U	34	36	-	1	-	-
P R	758	723	-	288	295	-	5	-	41
V I	1	3	-	1	1	-	-	-	-
Pac Trust Terr	215	128	-	62	75	-	46	-	-
Amer Samoa	-	-	-	5	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending November 1, 1986 (44th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	628	455	108	35	12	18	45
Boston, Mass	176	112	39	11	3	11	17
Bridgeport, Conn	42	31	9	1	-	1	4
Cambridge, Mass	20	17	2	-	1	-	1
Fall River, Mass	26	21	3	2	-	-	-
Hartford, Conn	69	52	8	6	2	1	3
Lowell, Mass	25	19	2	1	2	1	-
Lynn, Mass	15	9	5	1	-	-	-
New Bedford, Mass	27	22	3	2	-	-	1
New Haven, Conn	49	27	13	5	1	3	5
Providence, R.I.	41	31	7	1	1	1	5
Somerville, Mass	2	1	1	-	-	-	-
Springfield, Mass	51	43	4	3	1	-	4
Waterbury, Conn	28	24	3	1	-	-	2
Worcester, Mass	57	46	9	1	1	-	3
MID ATLANTIC	2,772	1,817	562	269	63	61	127
Albany, N.Y.	65	47	13	3	2	-	1
Allentown, Pa	16	14	2	-	-	-	1
Buffalo, N.Y.	110	77	22	3	4	4	8
Camden, N.J.	39	22	14	2	-	1	-
Elizabeth, N.J.	32	25	5	1	1	-	3
Erie, Pa †	36	25	9	1	1	-	1
Jersey City, N.J. §	50	31	11	5	1	2	2
N.Y. City, N.Y.	1,533	980	296	187	36	34	62
Newark, N.J.	53	16	14	18	2	3	3
Paterson, N.J.	26	15	5	4	-	2	2
Philadelphia, Pa §	347	230	76	24	7	10	20
Pittsburgh, Pa †	57	39	13	2	3	-	3
Reading, Pa	43	28	10	3	2	-	1
Rochester, N.Y.	122	92	21	6	1	2	12
Schenectady, N.Y.	32	25	5	1	1	-	1
Scranton, Pa †	31	26	5	-	-	-	2
Syracuse, N.Y.	81	54	21	3	1	2	1
Trenton, N.J.	33	22	8	2	-	1	-
Utica, N.Y.	36	25	9	2	-	-	2
Yonkers, N.Y.	30	24	3	2	1	-	2
E.N. CENTRAL	2,414	1,592	508	168	59	87	106
Akron, Ohio	65	46	13	2	1	3	-
Canton, Ohio	33	28	3	2	-	-	1
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	164	111	33	8	4	8	12
Cleveland, Ohio	176	110	39	14	7	6	3
Columbus, Ohio	122	77	28	9	3	5	9
Dayton, Ohio	129	82	33	12	-	2	3
Detroit, Mich	237	144	51	22	10	10	10
Evansville, Ind	40	31	6	1	1	1	1
Fort Wayne, Ind	81	52	21	2	2	4	3
Gary, Ind	21	6	8	4	1	2	1
Grand Rapids, Mich	82	64	11	3	2	2	6
Indianapolis, Ind	216	134	49	19	6	8	6
Madison, Wis	44	26	11	3	-	4	4
Milwaukee, Wis	140	117	16	4	1	2	5
Peoria, Ill	53	35	11	3	2	2	7
Rockford, Ill	41	26	11	-	2	2	7
South Bend, Ind	42	27	9	5	1	-	4
Toledo, Ohio	110	75	19	7	6	3	7
Youngstown, Ohio	54	39	11	3	-	1	1
W.N. CENTRAL	869	609	154	54	27	24	49
Des Moines, Iowa	54	41	7	4	1	1	4
Duluth, Minn	23	18	3	1	1	-	-
Kansas City, Kans	34	26	3	3	-	2	1
Kansas City, Mo	126	83	17	11	7	8	11
Lincoln, Nebr	30	24	4	-	2	-	2
Minneapolis, Minn	209	143	47	10	4	4	7
Omaha, Nebr	81	55	17	5	2	2	5
St Louis, Mo	171	125	28	11	6	1	11
St Paul, Minn	69	43	15	5	2	4	3
Wichita, Kans	72	51	13	4	2	2	5
S. ATLANTIC	1,425	865	307	143	58	50	44
Atlanta, Ga	187	118	27	24	9	9	1
Baltimore, Md	365	202	91	43	19	10	15
Charlotte, N.C.	72	44	18	5	3	2	4
Jacksonville, Fla	114	78	22	10	3	1	3
Miami, Fla	144	81	31	19	8	5	3
Norfolk, Va	61	34	20	4	1	2	-
Richmond, Va	79	49	18	7	3	2	6
Savannah, Ga	48	32	13	1	1	1	4
St Petersburg, Fla	103	84	9	4	3	3	2
Tampa, Fla	67	38	14	8	3	4	3
Washington, D.C.	165	88	44	17	5	11	3
Wilmington, Del	20	19	-	1	-	-	-
E.S. CENTRAL	726	437	171	63	22	32	29
Birmingham, Ala	125	83	22	9	5	6	2
Chattanooga, Tenn	67	40	14	8	2	3	6
Knoxville, Tenn	66	48	14	1	3	-	3
Louisville, Ky	99	58	30	7	2	2	4
Memphis, Tenn	118	68	29	14	4	2	4
Mobile, Ala	89	45	21	12	2	9	4
Montgomery, Ala	41	26	11	1	-	3	1
Nashville, Tenn	121	69	30	11	4	7	5
W.S. CENTRAL	1,287	794	290	108	39	56	68
Austin, Tex	59	38	13	3	3	2	8
Baton Rouge, La	32	22	5	3	1	1	1
Corpus Christi, Tex	38	24	8	1	2	3	2
Dallas, Tex	176	104	36	21	9	6	9
El Paso, Tex	43	26	13	1	1	2	8
Fort Worth, Tex	96	56	23	8	2	7	3
Houston, Tex	289	150	74	41	12	12	5
Little Rock, Ark	114	75	25	6	3	5	9
New Orleans, La	96	54	23	11	2	6	-
San Antonio, Tex	177	121	40	5	2	9	17
Shreveport, La §	61	42	13	4	1	1	2
Tulsa, Okla	106	82	17	4	1	2	4
MOUNTAIN	655	436	129	49	22	18	25
Albuquerque, N.Mex	72	49	12	4	5	1	3
Colo. Springs, Colo	43	30	8	1	2	2	3
Denver, Colo	122	71	25	15	6	5	5
Las Vegas, Nev	78	50	20	5	2	1	-
Ogden, Utah	32	22	7	2	1	-	3
Phoenix, Ariz	132	84	29	9	3	7	4
Pueblo, Colo	21	19	1	1	-	-	2
Salt Lake City, Utah	45	29	10	4	1	1	1
Tucson, Ariz	110	82	17	8	2	1	4
PACIFIC	1,933	1,291	383	169	37	48	106
Berkeley, Calif	17	9	3	3	1	1	3
Fresno, Calif	87	56	14	7	4	5	15
Glendale, Calif	28	22	4	2	-	-	1
Honolulu, Hawaii	75	55	9	6	-	5	10
Long Beach, Calif §	94	63	18	6	2	5	9
Los Angeles, Calif	576	380	116	64	10	5	16
Oakland, Calif §	78	51	14	6	5	2	3
Pasadena, Calif	30	22	2	3	1	2	1
Portland, Oreg	136	98	29	3	2	4	11
Sacramento, Calif	135	89	24	15	2	5	7
San Diego, Calif	125	77	29	16	1	1	4
San Francisco, Calif	164	107	36	17	2	2	3
San Jose, Calif	153	107	33	7	2	4	12
Seattle, Wash	135	86	30	11	4	4	2
Spokane, Wash	51	37	11	1	1	1	7
Tacoma, Wash	47	32	11	2	-	2	2
TOTAL	12,709††	8,296	2,612	1,058	339	394	599

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* Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

** Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages

§ Data not available. Figures are estimates based on average of past 4 weeks.

St. Louis Encephalitis — Baytown and Houston, Texas

In the summer of 1986, Harris County (Baytown and Houston), Texas, experienced its largest outbreak of St. Louis encephalitis (SLE) since 1980. As of October 7, 25 confirmed cases and one presumptive case had been reported; four patients died. The focus of virus activity was Baytown, a town of 56,910 located 30 miles east of Houston. Twenty-one cases occurred in the Baytown area; 19 of the patients resided within the city limits. Four of the patients with confirmed disease resided in Houston, and the patient with the presumptive case was a Pasadena, Texas, resident who had been exposed to infection in Houston.

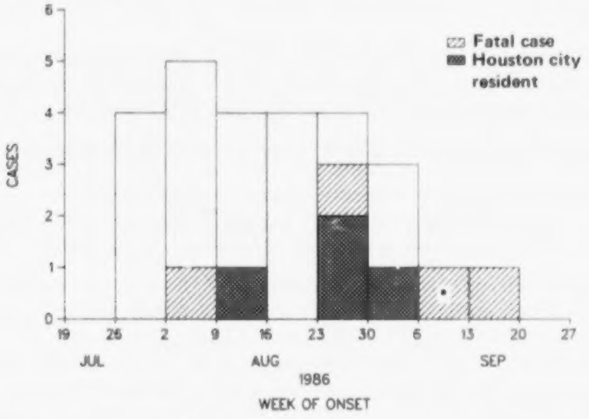
Before any cases were recognized, routine mosquito surveillance had led the Harris County Mosquito Control District to anticipate the outbreak. Vector mosquitoes collected in Baytown on July 15 and in the weeks that followed had had unusually high SLE virus infection rates (minimum infection rate >20 infected mosquitoes/1,000 tested), suggesting the likelihood of subsequent human disease. By August, the medical community in Harris County had been alerted to the possibility of a large SLE outbreak, and concentrated efforts to destroy adult mosquitoes had begun. Mosquito surveillance was intensified in Houston, but substantial numbers of infected mosquitoes were not detected there until August and September.

A countywide epidemic of enteroviral meningitis that began in March and continued through July made initial detection of the outbreak difficult. However, in September, a search of all Baytown hospital records disclosed only one case of SLE that had not already been recognized by physicians or infection-control nurses.

The 26 patients became ill in the period July 28-September 16 (Figure 1). Patients who lived in or were exposed to infection in Houston became ill notably later than those in Baytown. Although patients ranged from 10 to 84 years of age, 11 of them—including all four who died—were ≥55 years of age. The age- and sex-specific attack rates for Baytown (Table 1) showed a sharp increase in risk with advancing age. The attack rate for Baytown was 33.4/100,000 population, but cases were clustered principally in old, impoverished neighborhoods in the center of town. Ten of the 19 Baytown patients lived in the city's three poorest census tracts (attack rate, 85.2/100,000).

A case-control study of risk factors for infection was conducted. Controls were patients who were initially believed to have SLE but whose serologic test results did not indicate SLE

FIGURE 1. St. Louis encephalitis cases by week of onset, residence and outcome — Baytown and Houston, Texas, 1986



*Harris County resident exposed in Houston.

St. Louis Encephalitis – Continued

infection. Preliminary results indicated that the risk of acquiring SLE was associated with a) inadequate screening on dwellings (odds ratio [OR]=6.0), b) lack of air-conditioning (OR ≥10.0), and c) sitting outside the residence (OR=5.6). A trend toward risk was associated with window air-conditioning as opposed to central air-conditioning and with smoking cigarettes (p=0.07, Fisher's exact test). Patients and controls did not spend a significantly different number of hours outdoors or in such activities as gardening, walking outdoors, or watching television indoors.

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Editorial Note: Harris County has been the focus of numerous SLE epidemics. In 1964, an outbreak centered in Houston involved over 1,000 cases (*1,2*). Since that time, there have been frequent outbreaks of SLE in Houston and other areas of Harris County, but the cluster of cases this summer was the first reported for Baytown.

The epidemiologic characteristics of this outbreak followed a typical pattern. Attack rates rose with advancing age, and the risks for illness and mortality were highest for the elderly (*1,3,4*). The attack rate in Baytown—33.4/100,000 population—was typical for urban-centered SLE epidemics (*3,4*) and similar to the incidence in the 1964 Houston epidemic (19.5/100,000) (*1*). The highest attack rates in Baytown were associated with old, impoverished neighborhoods in the center of the city. This pattern was also similar to that for the 1964 Houston outbreak, i.e., the epicenter of epidemic activity was downtown Houston, and risk declined in direct proportion to distance from the center of the city (*1*).

The association between risk and dwellings poorly sealed against mosquitoes as well as the absence of an association between risk and the number of hours spent outdoors suggests that exposure may have occurred indoors or in a peridomestic setting outside. The present case-control study confirms an earlier report from serologic surveys that risk of infection is associated with inadequate screening or the absence of air-conditioning (*5*). The reasons underlying the association between cigarette smoking and risk of acquiring SLE are unknown. Entomologic descriptions of the peridomestic habits of the epidemic vector, *Culex quinquefasciatus*, have led to its common name, "southern house mosquito" (*6*). The case-control study provides epidemiologic evidence that epidemic SLE virus infection may be transmitted indoors.

When outbreaks of SLE occur, the usual public health advisory to seek protection indoors assumes that houses are adequately sealed against mosquitoes. An advisory to repair window screens—and help for persons who need assistance in doing so—may be a more ef-

TABLE 1. Age- and sex-specific attack rates for St. Louis encephalitis — Baytown, Texas, 1986

Age (years)	Male		Female		Total	
	Number	Rate*	Number	Rate*	Number	Rate*
≤24	1	(7.6)	2	(15.6)	3	(11.5)
25-54	4	(36.1)	3	(28.5)	7	(32.4)
≥55	5	(124.7)	4	(76.1)	9	(107.9)
Total	**10**	**(35.3)**	**9**	**(31.5)**	**19**	**(33.4)**

*Cases/100,000 population, based on 1980 census data.

St. Louis Encephalitis — Continued

fective preventive measure in impoverished neighborhoods where the risk of SLE infection appears highest.

The 1986 outbreak of SLE in Baytown and Houston provides a clear example of the value of mosquito surveillance in anticipating and limiting human infection. Results of mosquito surveillance corresponded temporally and geographically to the occurrence of human cases. Cases and virus isolates from mosquitoes in Houston were reported relatively late in comparison with the reporting of cases and virus activity in Baytown. Mosquito surveillance also accurately indicated that a large outbreak would occur in Baytown but not elsewhere in the county. Present methods of detecting viruses in mosquitoes through cell culture or mouse innoculation require 1 to 2 weeks. An antigen detection immunoassay that identifies SLE virus antigen in 1 day is being evaluated in several mosquito control districts and should improve the timeliness of surveillance.

Although the outbreak in Baytown was the largest cluster of SLE cases this year, sporadic SLE virus activity was widespread in the United States. The Baytown outbreak was part of more diffuse activity on the Gulf Coast. To the south, a case was reported from Matagorda County, Texas. To the east, four cases were reported in Port Arthur, Texas, and one case each was reported in Lake Charles and in Baton Rouge, Louisiana. In the Upper Midwest, cases were reported in Fargo, North Dakota, and Scotts Bluff, Nebraska. (The Scotts Bluff patient was visiting the area.) In July, two cases were reported from Los Angeles, California.

Major urban-centered SLE outbreaks have recurred in a 10-year cycle. The last nationwide epidemic of SLE occurred in 1976, when more than 2,000 cases were reported (*3*). Small premonitory outbreaks often have foreshadowed larger epidemics the following year (*3*). The 1986 SLE virus activity indicates both the possibility of more widespread transmission next year and the need for careful surveillance.

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Erratum: Vol. 35, No. 42

p. 655 In Table 1, Hispanic AIDS cases included 254 cases in adults (age $\geq$15 years) and 11 cases in children (age $<$15 years) that were citizens of Puerto Rico. In calculating the cumulative incidences, however, the denominator included only the U.S. population. If the Puerto Rican population is included in the denominator, the cumulative incidence for adults is 291.9/1,000,000 population, and for children, 13.7/1,000,000 population. Alternatively, if the Puerto Rican cases are excluded from the numerator, the cumulative incidence for adults is 330.6/1,000,000 population, and for children, 14.3/1,000,000 population.

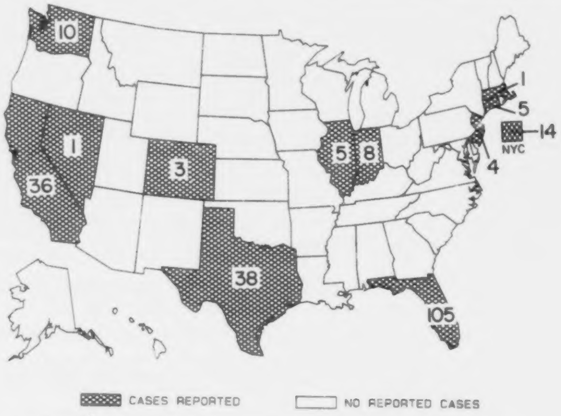
In Tables 2 and 3, the U.S. population provided for reference does not include the Puerto Rican population. The AIDS cases in these tables include cases from Puerto Rico. For reference, the total U.S. population including Puerto Rico is 177,442,206 adults (80.4% white, 10.5% black, 6.8% Hispanic, and 2.3% other races) and 52,299,613 children (71.8% white, 14.3% black, 10.9% Hispanic, and 3.0% other races).

Notice to Readers

Delay in Publication of Tables I-IV

Because Veterans' Day (a Federal holiday) falls on Tuesday, November 11, this year, Tables I-IV—specified notifiable diseases and deaths in 121 U.S. cities—for the week ending November 8 cannot be prepared in time for the November 14 issue of the *MMWR*. Therefore, Volume 35, Number 45, dated November 14, 1986, will contain text only and Volume 35, Number 46, dated November 21, 1986, will contain a double set of Tables I-IV for the weeks ending November 8 and November 15. The data from Tables I-IV will be available upon request after 1:00 p.m. on Thursday, November 13. Call (404) 329-3761.

FIGURE I. Reported measles cases — United States, weeks 40-43, 1986



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CENTERS FOR DISEASE CONTROL

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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Epidemiologic Notes and Reports

Positive HTLV-III/LAV Antibody Results for Sexually Active Female Members of Social/Sexual Clubs — Minnesota

In June 1986, two sexually active women in Minnesota were found to have antibody to human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV).* Both belonged to social/sexual clubs whose stated purpose was to provide their members (primarily couples) with opportunities for social and sexual contacts.† Each of the two seropositive women reported having sexual contact with a number of other persons from these clubs, including two men who were bisexual.

Infection was detected in these two women during a serologic screening program conducted by the St. Paul Division of Public Health, in consultation with the Minnesota Department of Health. This screening was undertaken because members of these clubs were known to have been involved in outbreaks of other sexually transmitted diseases (including syphilis and gonorrhea). From a total of 285 members (143 women and 142 men) of two of these social/sexual clubs in the Minneapolis-St. Paul area, 134 volunteers were tested with an enzyme-linked immunosorbent assay (ELISA) for antibody to HTLV-III/LAV in June and July 1986. Any ELISA-positive specimens were also tested with the Western blot assay. All 75 men tested had negative ELISA results for antibody to HTLV-III/LAV. Two of 59 women tested had positive antibody test results for HTLV-III/LAV with both ELISA and Western blot. Antibody results for these women were again positive with ELISA and Western blot when repeated 6 weeks later. The seroprevalence rate of 3% among female club members tested is significantly higher than the seroprevalence rate of zero (none of 56,000) among female blood donors in Minnesota.

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*The AIDS virus has been variously termed human T-lymphotropic virus type III (HTLV-III/LAV), lymphadenopathy-associated virus (LAV), AIDS-associated retrovirus (ARV), or human immunodeficiency virus (HIV). The designation "human immunodeficiency virus" (HIV) has been accepted by a subcommittee of the International Committee for the Taxonomy of Viruses as the appropriate name for the retrovirus that has been implicated as the causative agent of AIDS (Science 1986;232:697).

†These clubs are popularly known as "swing clubs". A national organization lists more than 100 such clubs (*1*).

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HTLV-III/LAV – Continued

The two seropositive women had belonged to two different social/sexual clubs for approximately 2 years. Both denied intravenous drug use, a history of blood transfusions, or receipt of clotting factor concentrates. One woman was 31 years old, married, and had sexual relations only with other club members; her husband (also a member) had negative test results for HTLV-III/LAV antibody. The other woman was 25 years old, unmarried, and occasionally had sexual relations with men outside the club.

Each of these two women reported having had sexual contact with more than 25 other club members, including five men with whom they had both had sexual intercourse. Two of these five men could be located for testing and had negative results for HTLV-III/LAV antibody. Two of the other three men whose serologic status could not be determined were reported to be bisexual men with whom both women had had repeated vaginal and anal intercourse.

An additional bisexual man who was a former member of one of these clubs is known to have developed acquired immunodeficiency syndrome (AIDS). He had no history of sexual contact with either of the seropositive women or with either of the two bisexual men who had sexual contact with these women.

To date, 55 of the 134 club members tested for antibody to HTLV-III/LAV (including the two seropositive women) have participated in follow-up interviews and have received counselling about their sexual practices and attitudes. Four (15%) of 27 men reported homosexual contact with other club members as well as with men who were not members of either of the two clubs. When asked whether they perceived themselves as being at increased risk of having AIDS, 40 members (73%) replied that they did not. One man reported that he "usually" used condoms while having sexual intercourse. When asked whether they would continue to participate in the activities promoted by social/sexual clubs if they knew such activities were associated with a high risk of having AIDS, 54/55 (98%) answered that they would not.

When it was known that one member of each of the two clubs was positive for HTLV-III/LAV antibody, both clubs disbanded. In an effort to minimize the transmission of HTLV-III/LAV, educational programs for sexually active adults (including former club members) are currently being implemented in the Minneapolis-St. Paul area. Follow-up studies of former club members are planned to assess whether other changes in sexual behavior are occurring.

Reported by K Henry, MD, St Paul Div of Public Health, St. Paul Ramsey Medical Center and the University of Minnesota School of Medicine; KL MacDonald, MD, MT Osterholm, PhD, MPH, State Epidemiologist, Minnesota Dept of Health; AIDS Program, Center for Infectious Diseases, CDC.

Editorial Note: The risk of having HTLV-III/LAV infection and other sexually transmitted diseases is increased for persons who have multiple sexual partners as well as for persons who have sexual encounters with high-risk individuals (*2-5*). However, most members of two social/sexual clubs in Minnesota who were interviewed did not consider themselves at increased risk of having AIDS and did not take precautions to protect themselves against AIDS or other sexually transmitted diseases.

Both seropositive women discussed above had a history of multiple sexual encounters—including vaginal and anal intercourse—with high-risk individuals. Although receptive anal intercourse is associated with increased risk of HTLV-III/LAV infection for homosexual men, most women infected with HTLV-III/LAV through sexual contact have denied having had anal intercourse (*6-11*).

To reduce the risk of HTLV-III/LAV infection, the Public Health Service recommends avoiding sexual contact with multiple partners or with persons who have been sexually active with multiple partners (*2,4,5*). Persons who do not follow this recommendation and who a) initiate a sexual relationship with another person who is at increased risk of having HTLV-III/LAV in-

HTLV-III/LAV – Continued

fection or b) maintain multiple sexual partnerships should at least avoid sexual practices that permit the exchange of blood, semen, urine, feces, saliva, or vaginal/cervical secretions. Consistent use of condoms may reduce transmission of HTLV-III/LAV (*12*). Other efforts to reduce HTLV-III/LAV transmission include making available voluntary serologic testing and health education and counselling for all persons believed to be at increased risk of having HTLV-III/LAV infection (*4*).

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Current Trends

Tuberculosis — United States, 1985

In 1985, 22,201 cases of tuberculosis were reported to CDC (a rate of 9.3/100,000 population). The number of cases reported in 1985 was 54 less than the 22,255 reported in 1984—a marked change from the average annual decrease of 1,706 cases observed from 1981 to 1984. Compared with 1984, this is a 0.2% decrease in the number of reported cases and a decline of 1.1% in the case rate.

Tuberculosis — Continued

Table 1 shows the observed cases for 1984 and 1985 by state and the expected cases for 1985, based upon the average annual decline of 6.7% observed for the entire nation from 1981 to 1984. Overall, there were 1,437 more cases than expected (excess) in 1985. The five states with the greatest number of excess cases were: California (+407 cases), New York (+385), Texas (+247), Florida (+179), and Massachusetts (+106). The five large cities (≥ 250,000 population) with the greatest number of excess cases were: New York City (+322), Los Angeles (+108), Miami (+97), Dallas (+79), and San Francisco (+54).

Table 2 shows observed cases for 1984 and 1985 by age, sex, race, and ethnicity. There were 1,261 reported cases in children under 15 years of age, including 789 in children under 5. Compared with 1984, reported cases increased in two age groups in 1985—children under 5 years of age (+4.0%) and adults from 25 to 44 years of age (+5.5%). Reported cases increased 0.4% among males and declined 1.4% among females. Reported cases among whites decreased 1.6% while increases occurred in blacks (+0.7%), Asians/Pacific Islanders (+2.4%), and American Indians/Alaskan Natives (+5.9%). Reported tuberculosis cases among Hispanics increased 14.0%, but among non-Hispanics they decreased 2.2%.

Table 2 also shows the expected number of cases for 1985, based upon the average age-, sex-, race-, and ethnicity-specific declines observed from 1981 to 1984. Comparing observed with expected cases for 1985, the age groups with the greatest number of excess cases in 1985 were: 25-44 years (+663), 65+ years (+244), 45-64 years (+211), and 15-24 years (+146). There were 1,011 excess cases among males and 419 excess cases among females. Excess cases by race were: white (+747), black (+294), Asian/Pacific Islander (+294), and American Indian/Alaskan Native (+58). There were 640 excess cases among Hispanics and 791 excess cases among non-Hispanics.

Final morbidity data reported to CDC for 1985 indicate that 1,276 (5.7%) of the total 22,201 reported cases were found at time of death. In addition, program evaluation data reported to CDC from 95 reporting areas indicate that 9.3% of patients who began chemotherapy in 1984 died of various causes (including tuberculosis) within 1 year. Final tuberculosis mortality data from the National Centers for Health Statistics indicate that there were 1,729 tuberculosis deaths in 1984—a decline of 2.8% from the 1,779 deaths reported in 1983.

Reported by Div of Tuberculosis Control, Center for Prevention Svcs, CDC.

Editorial Note: The observed decline of only 0.2% in 1985 is substantially smaller than the average annual decline of 6.7% observed from 1981 to 1984. As reported previously (*1-3*), available evidence from some areas suggests that human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV) infection of persons infected with the tubercle bacillus may be responsible for increased tuberculosis morbidity, but the full impact of HTLV-III/LAV on national tuberculosis morbidity is unknown. Health departments are encouraged to undertake surveillance activities to determine the degree to which tuberculosis morbidity is associated with AIDS and HTLV-III/LAV infection (*1,4*).

Of the five states (New York, California, Florida, New Jersey, and Texas) with the largest number of AIDS cases reported through 1985, four (New York, California, Florida, and Texas) had the greatest number of excess tuberculosis cases in 1985 (Table 1). New Jersey began participating in the national tuberculosis individual case reporting system in 1985, and the decrease in its reported tuberculosis cases (Table 1) may reflect a reporting artifact sometimes encountered during the first year that a state reports to this system.

Of the five metropolitan areas (New York City, San Francisco, Miami, Newark, and Los Angeles) with the largest number of reported AIDS cases through 1985, four (New York City, Los Angeles, Miami, and San Francisco) had the greatest number of excess tuberculosis cases

Tuberculosis – Continued

TABLE 1. Comparison of observed (reported) and expected tuberculosis cases by state and District of Columbia, 1985 vs. 1984

State	Observed cases 1984	Observed cases 1985	Change in cases	Percent change	Expected cases 1985[*]	Observed minus expected
California	3,306	3,491	+185	+ 5.6	3,084	+407
New York	2,246	2,481	+235	+10.5	2,096	+385
Texas	1,762	1,891	+129	+ 7.3	1,644	+247
Florida	1;335	1,425	+ 90	+ 6.7	1,246	+179
Massachusetts	376	457	+ 81	+21.5	351	+106
Georgia	784	828	+ 44	+ 5.6	731	+ 97
Arkansas	315	362	+ 47	+14.9	294	+ 68
Illinois	1,207	1,193	– 14	– 1.2	1,126	+ 67
South Carolina	544	566	+ 22	+ 4.0	508	+ 58
Virginia	473	488	+ 15	+ 3.2	441	+ 47
Alaska	79	110	+ 31	+39.2	74	+ 36
Maryland	428	434	+ 6	+ 1.4	399	+ 35
Louisiana	377	384	+ 7	+ 1.9	352	+ 32
Washington	207	220	+ 13	+ 6.3	193	+ 27
Oklahoma	262	264	+ 2	+ 0.8	244	+ 20
Montana	33	50	+ 17	+51.5	31	+ 19
Alabama	565	544	– 21	– 3.7	527	+ 17
Arizona	273	271	– 2	– 0.7	255	+ 16
Colorado	96	106	+ 10	+10.4	90	+ 16
Maine	35	47	+ 12	+34.3	33	+ 14
Minnesota	138	142	+ 4	+ 2.9	129	+ 13
Kansas	77	82	+ 5	+ 6.5	72	+ 10
South Dakota	25	31	+ 6	+24.0	23	+ 8
Tennessee	601	569	– 32	– 5.3	561	+ 8
Wyoming	5	9	+ 4	+80.0	5	+ 4
Rhode Island	55	53	– 2	– 3.6	51	+ 2
Mississippi	380	356	– 24	– 6.3	355	+ 1
Vermont	8	8	0	0.0	7	+ 1
Connecticut	176	164	– 12	– 6.8	164	0
Delaware	57	53	– 4	– 7.0	53	0
Idaho	28	26	– 2	– 7.1	26	0
Nevada	42	39	– 3	– 7.1	39	0
North Dakota	14	13	– 1	– 7.1	13	0
New Hampshire	27	23	– 4	–14.8	25	– 2
Oregon	156	144	– 12	– 7.7	146	– 2
Iowa	68	60	– 8	–11.8	63	– 3
Wisconsin	155	141	– 14	– 9.0	145	– 4
Nebraska	30	23	– 7	–23.3	28	– 5
Utah	40	31	– 9	–22.5	37	– 6
District of Columbia	189	168	– 21	–11.1	176	– 8
New Mexico	112	94	– 18	–16.1	104	– 10
Kentucky	510	463	– 47	– 9.2	476	– 13
Hawaii	218	189	– 29	–13.3	203	– 14
West Virginia	133	108	– 25	–18.8	124	– 16
Indiana	383	340	– 43	–11.2	357	– 17
Missouri	354	311	– 43	–12.1	330	– 19
Ohio	528	459	– 69	–13.1	493	– 34
North Carolina	756	669	– 87	–11.5	705	– 36
Pennsylvania	836	736	–100	–12.0	780	– 44
Michigan	661	540	–121	–18.3	617	– 77
New Jersey	790	545	–245	–31.0	737	–192
Total	**22,255**	**22,201**	**– 54**	**– 0.2**	**20,764**[†]	**+1,437**[†]

[*] Assumes a minus 6.7% decline in cases for 1985 compared with 1984. Based upon the average annual decline for the nation as a whole from 1981 to 1984.

[†] Expected cases and observed minus expected cases for states may not add to totals because of rounding.

Tuberculosis – Continued

in 1985. As with the total number of cases reported for New Jersey, tuberculosis morbidity reported for Newark in 1985 may be artifactually low.

In addition to the probable impact of HTLV-III/LAV infection, there are undoubtedly other reasons for the excess tuberculosis morbidity in 1985. Excess morbidity occurred in all age groups, both sexes, and all four races (Table 2), whereas AIDS patients who have had tuberculosis (as reported from Florida, New York City, San Francisco, and Newark) are predominantly black or white males from 25 to 44 years of age (*1,2,5,6*). This suggests that there are other factors contributing to the excess morbidity that need to be examined.

The continued occurrence of tuberculosis in children is clear evidence of ongoing transmission of infection in the United States. Health departments are encouraged to analyze childhood tuberculosis cases as a "sentinel health event" (*7-9*) to determine how and why they occurred and what program changes are needed to prevent future cases.

Reported tuberculosis deaths have failed to show an appreciable decline in recent years. From 1980 to 1984, the average annual decline in mortality was only 2.9%. Five to ten percent of persons who develop tuberculosis die from this disease, yet tuberculosis is considered preventable and curable by the medical community. Health departments are encouraged to identify and correct breakdowns or gaps in surveillance and health care systems that contribute to tuberculosis mortality.

It should be possible to accelerate the decline of tuberculosis by: (1) fully implementing existing methods of prevention; (2) developing new treatment, diagnostic, and prevention technologies (*10*); and (3) rapidly implementing these new technologies in all areas of the country.

TABLE 2. Comparison of observed (reported) and expected tuberculosis cases by age group, sex, race, and ethnicity — United States, 1985 vs. 1984

	Observed cases 1984	Observed cases 1985	Change in cases	Percent change	Expected* percent decline	Expected cases 1985	Observed minus expected	Percent
Age								
<5	759	789	+ 30	+ 4.0	– 7.8	700	+ 89	+12.7
5-14	477	472	– 5	– 1.0	–12.6	417	+ 55	+13.2
15-24	1,682	1,672	– 10	– 0.6	– 9.3	1,526	+ 146	+ 9.6
25-44	6,409	6,764	+355	+ 5.5	– 4.8	6,101	+ 663	+10.9
45-64	6,427	6,143	–284	– 4.4	– 7.7	5,932	+ 211	+ 3.6
65+	6,501	6,361	–140	– 2.2	– 5.9	6,117	+ 244	+ 4.0
Sex								
Male	14,441	14,499	+ 58	+ 0.4	– 6.6	13,488	+1,011	+ 7.5
Female	7,814	7,702	–112	– 1.4	– 6.8	7,283	+ 419	+ 5.8
Race								
White	11,729	11,538	–191	– 1.6	– 8.0	10,791	+ 747	+ 6.9
Black	7,678	7,734	+ 56	+ 0.7	– 3.1	7,440	+ 294	+ 4.0
Asian/Pacific Islander	2,473	2,532	+ 59	+ 2.4	– 9.5	2,238	+ 294	+13.1
American Indian/ Alaskan Native	375	397	+ 22	+ 5.9	– 9.6	339	+ 58	+17.1
Ethnicity								
Hispanic	2,750	3,134	+384	+14.0	– 9.3	2,494	+ 640	+25.7
Non-Hispanic	19,505	19,067	–438	– 2.2	– 6.3	18,276	+ 791	+ 4.3

*Average annual decline by age group, sex, race, and ethnicity, based on final reporting for 1981 through 1984.

Tuberculosis – Continued

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Trends in Mortality from Cirrhosis and Alcoholism — United States, 1945-1983

Approximately 10.6 million adults in the United States can be classified as alcoholics, and an additional 7.3 million either are alcohol abusers or have experienced negative consecuences of alcohol use such as arrest or involvement in an accident. In addition, an estimated 4.6 million young people aged 14 to 17 are problem drinkers. The public health consequences of problem drinking include injuries and deaths from fires, falls, drowning, homicide, suicide, family abuse and other violence as well as industrial and motor vehicle accidents. An estimated one-third to one-half of all unintentionally and intentionally injured adult Americans involved in accidents, crimes, and suicides had been drinking alcohol (*1,2*). Problem drinking also causes medical damage including pancreatitis, nutritional deficiencies, malignancies, fetal alcohol syndrome, and cirrhosis (the ninth leading cause of death among adults in the United States) (*3*). Recent trends in the occurrence of selected medical complications of alcohol use are outlined below.

Cirrhosis and Alcoholism — Continued

Since 1950, noticeable trends in selected mortality rates have been associated with alcoholism and alcohol abuse (Table 1) (*4-9*). The age-adjusted total cirrhosis death rate increased gradually from 1950 until 1973 and has since declined. Death rates due to alcoholism reached a peak in 1980 and have leveled off since then.

Per capita rates of alcohol consumption rose approximately 21% during the 1960s and 10.3% during the 1970s. Data from 1977 through 1984 (the latest year for which complete data are available) show that overall per capita consumption reached a plateau in 1980 and 1981 and then declined until 1984. The 1984 consumption rate, which approximated that of 1977, was estimated at 2.65 gallons of absolute ethanol per year for U.S. residents aged 14 or older.[*]

The trends in death rates from alcoholism and per capita alcohol consumption have been parallel. On the other hand, cirrhosis mortality rates have declined since 1973, while per capita consumption of alcohol continued to increase until 1982.

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[*] Estimated per capita ethanol consumption rates are based on beverage sales or shipments, and data include nondrinkers. Gallons of absolute ethanol consumption were calculated by using the following percentages of total beverage sales during the period 1945-1984: 1) For beer, 4.5% was used for the entire period; 2) for wine, 18.0% was used through 1951, 17% was used for the period 1952-1968, 16.0% was used for the period 1969-1971, 14.5% was used for the period 1972-1976, and 12.9% was used for the period 1979-1984; and 3) for spirits, 45.0% was used through 1971, 43.0% was used for the period 1972-1976, and 41.1% was used for the period 1977-1984.

TABLE 1. Age-adjusted death rates for liver cirrhosis and alcoholism — United States, 1945-1983[*]

Year	Liver Cirrhosis[†]	Alcoholism[†]
1945	8.6[§]	1.7[**]
1950	8.5[§]	1.5
1955	9.4	1.2
1960	10.5	1.2
1965	12.1	1.4
1970	14.6	2.1
1971	14.6	2.2
1972[¶]	14.9	2.2
1973	15.0	2.2
1974	14.7	2.3
1975	13.7	2.3
1976	13.5	2.2
1977	13.0	2.3
1978	12.4	2.4
1979	12.1	2.4
1980	12.2	2.6
1981	11.4	2.4
1982	10.6	2.2
1983	10.2	2.3

[*] Rates per 100,000 population; computed by the direct method using as the standard population the age distribution of the United States as enumerated in 1940.

[†] A Crosswalk was used for the years 1979-1983 to convert diagnostic codes from ICD-9 rubrics to ICDA-8 rubrics (*9*).

[§] Deaths based on a 50% sample.

[¶] Based on enumerated population adjusted for age bias in the population of races other than white.

[**] Not age adjusted.

Cirrhosis and Alcoholism – Continued

Reported by J Colliver, PhD, D Doernberg, MLS, B Grant, PhD, Alcohol Epidemiologic Data System, CSR, Inc, M Dufour, MD, MPH, D Bertolucci, MA, Div of Biometry and Epidemiology, National Institute on Alcohol Abuse and Alcoholism; Epidemiology Br, Div of Nutrition, Center for Health Promotion and Education, CDC.

Editorial Note: The reason for the decline in cirrhosis mortality since 1973 is not clear—especially since deaths from alcoholism and per capita consumption have not shown a similar decline. Possible reasons for this decrease include earlier diagnosis and improvement in medical management, which enable persons having the disease to live longer. In addition to improved medical care, other possible contributing factors include: changes in physicians' coding of death certificates, a decrease in causes of cirrhosis other than alcohol misuse, and a decrease in co-morbid conditions with a resultant increase in survival. If this is true, the decline in the cirrhosis mortality rates may not reflect changes in drinking habits of the general population, and per capita consumption may not directly reflect individual use patterns. Therefore, changes in the prevalence of chronic heavy alcohol use among certain segments of the population might not be seen.

Data from CDC's 1981-1983 behavioral risk factor surveys provided national estimates of the prevalence of three patterns of alcohol misuse: chronic heavy alcohol use—8.7%, binge drinking—22.7%, drinking and driving—6.1% (*10,11*). The behavioral risk factor surveillance system (*12*) will be used to follow secular trends in these patterns of alcohol misuse and may provide some insight into changes in alcohol-related mortality as reflected by death certificate data. Further research is needed to determine which factor(s) account for the decline in cirrhosis mortality.

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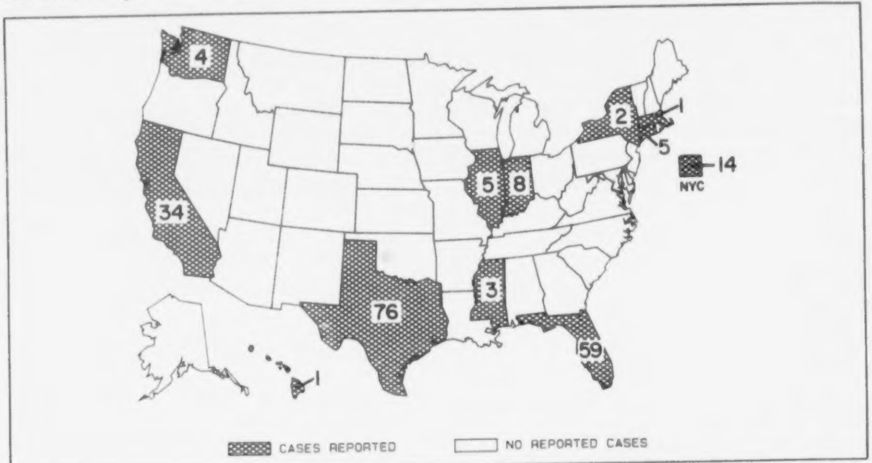
Notice to Readers

Delay in Publication of Tables I-IV

Because of the Veterans' Day holiday, Tables I-IV—specified notifiable diseases and deaths in 121 U.S. cities—for the week ending November 8 could not be prepared in time for this issue of the *MMWR*. Volume 35, Number 46, dated November 21, 1986, will contain a double set of Tables I-IV for the weeks ending November 8 and November 15.

FIGURE I. Reported measles cases — United States, weeks 41-44, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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MORBIDITY AND MORTALITY WEEKLY REPORT

November 21, 1986/Vol. 35/No. 46

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Current Trends

Smoking and Health: A National Status Report

When the Comprehensive Smoking Education Act, Public Law 98-474, was signed into law in October 1984, it was the first major smoking and health legislation enacted by the Congress in over 15 years. The law required that all cigarette packages and advertising include four new health warnings and that these warnings be rotated quarterly. These new warnings replaced the single statement that had appeared on packs and in advertising since 1970.

The legislation also required the Department of Health and Human Services to undertake significant new activities, including a biennial report to Congress. On November 20, 1986, the Department issued the first of these reports. "Smoking and Health: A National Status Report" provides significant new information on smoking and health at the national, state, and local levels (*1*). A summary of key findings is presented below.

Smoking Prevalence 1955-1985

By 1985, 21 years after the first report of the Surgeon General's Advisory Committee, smoking prevalence rates in the United States had declined to the lowest level observed in nearly 40 years. Only 30% of all persons ≥18 years of age now smoke cigarettes on a regular basis. This figure is down from nearly 45% at the time of the Advisory Committee's report in 1964 (*2*).

Smoking rates for men have declined more rapidly than smoking rates for women (Figure 1). In the early 1960s, male cigarette-use rates were well above 50%. In 1985, male smoking prevalence had decreased to 33%—probably the lowest rate among men in this country at any time except prior to World War I. From the mid-1960s to 1985, female smoking rates declined from 34% to 28%. However, the gap between male and female smoking is narrowing. When lifetime smoking prevalence is examined by birth cohort, it is clear that, among contemporary age groups, there no longer exists a significant difference between men and women either in initiating smoking or in regular use of cigarettes.

Age of Initiation of Regular Cigarette Smoking

Data from the National Health Interview Survey shows a narrowing of the average age of initiation between men and women. Cigarette smoking among men began to increase around

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the turn of the century, and, by World War I, large numbers of men were smoking cigarettes. Women, however, did not begin to smoke in significant numbers until some 25 years later—just prior to and during World War II.

In more recent birth cohorts, the overwhelming majority of both men and women began smoking as teenagers. For the cohorts born from 1940 to 1949 and from 1950 to 1959, there is little difference in the proportion of men and women who began regular smoking before their 20th birthday (Figure 2). For the cohort born from 1950 to 1959, 88% of male and 84% of female ever smokers had initiated their behavior before age 20. Few adults initiate and adopt the behavior on a regular basis after age 20.

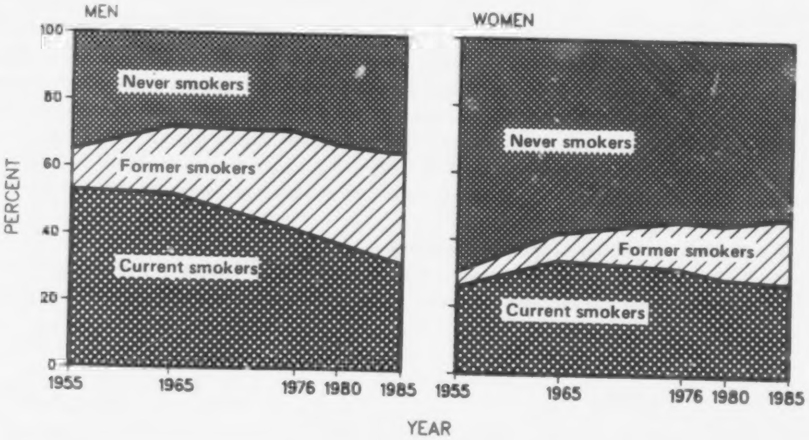
Reports of the Surgeon General and others have consistently noted a strong dose-response effect between smoking initiation at an early age and mortality from all the major smoking-related diseases, including cancer, cardiovascular disease, and chronic obstructive lung disease. The current report also states that the earlier a person begins to smoke as a teenager, the less likely that person is to quit smoking as an adult and the more likely that person is to be a heavy smoker.

State Legislation on Smoking and Health

The new report contains a complete review of all state legislation on smoking and health. One of the major findings relates to sales and distribution of cigarettes and other tobacco products to minors. The majority of states (38) have enacted legislation restricting the sale or distribution of tobacco products to minors. However, 12 states have no such laws, and 14 of the states with restrictive legislation have set the minimum age for purchasing tobacco products at less than 18.

The Secretary of Health and Human Services, Dr. Otis Bowen, in his letter transmitting the report to the Congress, strongly urged all jurisdictions to adopt 18 as the *minimum* age at which any person should be allowed to purchase tobacco products. Concerning laws that impede the sale or availability of tobacco products to minors, Dr. Bowen wrote, "Enactment and enforcement of such legislation could have a strong preventive effect on early uptake of cigarettes and other tobacco products."

FIGURE 1. Percentage of current, former, and never smokers, by sex and year, United States, 1955-1985



Smoking and Health — Continued

Reported by Office on Smoking and Health, Center for Health Promotion and Education, CDC.

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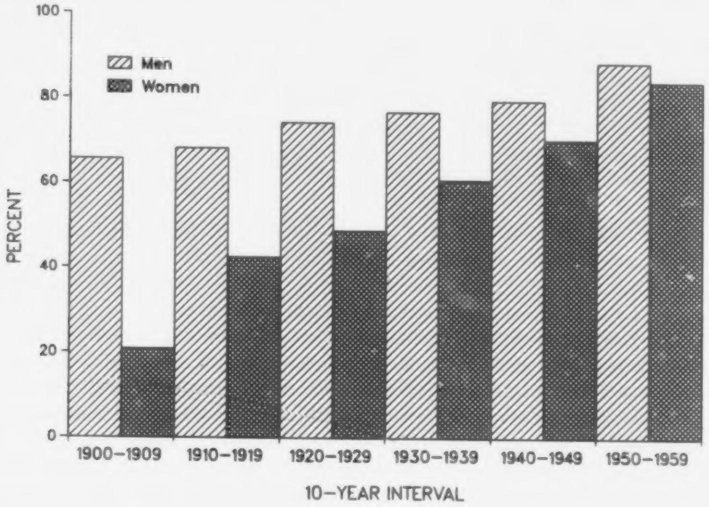
FIGURE 2. Percentage of persons initiating smoking before age 20, by sex and 10-year birth cohorts, United States, 1900-1959



Premature Mortality from Diabetes Mellitus — Use of Sentinel Health Event Surveillance to Assess Causes

According to national death certificate data (Table V), diabetes was the 12th leading cause of years of potential life lost in the United States in 1984. Actually diabetes contributes to a much larger proportion of mortality, since it is reported on only about half of the death certificates for persons who die with the disease and is listed as the underlying cause on only one-quarter of the certificates on which it appears (*1*). The most frequent causes of death among persons with diabetes are ischemic and other forms of heart disease, cerebrovascular disease, and other forms of atherosclerosis; renal disease, including nephritis/nephrosis and uremia; respiratory disease; and infection.

Optimal diabetes control depends on access to health care and the application of modern health care practices by both providers and patients. A method recently suggested for ascertaining the causes of premature mortality among persons with diabetes is the enumeration

Diabetes Mellitus — Continued

and investigation of deaths among young persons with diabetes (*2*). For the purpose of this investigation, each death is considered a "sentinel health event" worthy of detailed evaluation (*3*). The frequency of and factors contributing to these events may serve as a measure of the quality of health care in the community.

During 1985, Diabetes Control Programs (DCP) in Colorado, Illinois, Kentucky, Louisiana, Michigan, and Washington participated in a pilot project to test a surveillance system for sentinel health events for persons with diabetes. An event was defined as the death of a person who was <45 years of age and whose death certificate made any reference to diabetes. A DCP investigator gathered basic demographic data from the death certificate and interviewed a family member and a physician associated with the case. The information collected included demographic, clinical, and health care related data.

The cause of death for each event was coded into one of the following three categories: 1) acute complications of diabetes (diabetic ketoacidosis or coma, infection, and hypoglycemia), 2) chronic complications (heart disease, end-stage renal disease, and cerebrovascular disease), and 3) other (diabetes only, non-diabetes-related, and unknown). Coding was based on the most contributory cause as indicated on the death certificate and by the DCP investigation.

Two hundred and thirty-three events were identified. The mean observed mortality rate (adjusting for variable observation times among sites) was 32.7/10,000 persons who were <45 years of age and had diabetes. Based on 1983 national death certificate data, the expected rate is 36.3/10,000 persons <45 years of age with diabetes.

The cohort of events included 146 males and 87 females. The median age at death was 38 years for males and 36 years for females. The distribution of causes of death did not differ between males and females. However, the cause of death differed significantly by age (Chi-square=14.5, $p<0.01$); younger persons tended to die from acute complications, and older persons, from chronic complications (Table 1).

Several conditions were incidentally reported with notable frequency. They include alcohol abuse (13 events), suicide (5 events), and cardiomyopathy or congestive heart failure in the absence of ischemic heart disease (7 events). Eight of the persons with a history of alcohol abuse were male. Five of the 13 persons with a history of alcohol abuse died from acute complications; three, from chronic complications; and five, from other causes. All of the suicide events involved males.

The care practices of the cohort are shown by sex in Table 2. Such practices as blood pressure measurement and urinalysis were reported to have been conducted within the last year of life for virtually every person in the cohort. Other care practices, including glycohemoglobin measurement and funduscopic examination in the last year of life, were reported less commonly. Only half (48%) of the funduscopic examinations were performed by ophthal-

TABLE 1. Cause of death among 233 persons <45 years of age with diabetes, by age, 1985

	Age			
Cause of death	**0-24 N=18**	**25-34 N=68**	**35-44 N=147**	**Total N=233**
Acute complication	50.0%	22.1%	18.4%	21.9%
Chronic complication	11.1%	48.5%	60.5%	53.2%
Other	38.9%	29.4%	21.1%	24.9%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Diabetes Mellitus — Continued

mologists. Among those persons using insulin (84%), 46% had had a glycohemoglobin test in the last year of life, and 61% had used self-monitoring of blood glucose. Although virtually all persons with hypertension had been under treatment for it, the condition had not been controlled for 57% of them (≥140/90 mm Hg at the last examination). Forty-one percent were smokers at the time of death.

Individual differences in care practices between those who died from acute complications and those who died from chronic complications were not statistically significant. However, those who died from acute complications were reported to have had fewer average yearly physician visits than those who died from chronic complications (Wilcoxon rank sum test, $p < 0.05$).

There were more males than expected in the cohort. The ratio of males to females was 1.6, whereas the ratio of males to females in the living diabetic population <45 years of age is 0.7. Differences in individual care practices between males and females were not statistically significant. However, within the last year of life, females had consistently higher rates of beneficial health care practices such as blood pressure check, urinalysis and glycohemoglobin testing, self-monitoring of blood glucose, and funduscopic examination. Fewer females had been current smokers, and females had seen physicians more frequently than had males, though the difference was not significant (median frequency 9 visits per year for females as compared with 6.5 visits per year for males).

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Editorial Note: Despite the heavy toll of chronic diseases on the health of persons in the United States, there are relatively few surveillance systems for them. The model surveillance system employed for infectious diseases, which includes reporting and compiling cases at a central source and rapidly disseminating results, is not currently a feasible approach for chronic disease surveillance. Infectious disease control—the investigation of causes and development of control strategies—is relatively straightforward. Chronic disease surveillance and control are comparatively more difficult because 1) chronic diseases are more complicated to diagnose, 2) there are often multiple and poorly defined etiologic factors for disease, and 3) there are long latency periods between these factors and the onset of disease. In addition, the factors responsible may be behaviors or practices (or neglect thereof) of affected persons or health care providers.

TABLE 2. Care practices in year prior to death among persons <45 years of age with diabetes, by sex, 1985*

	Male		Female		Total	
	No.	(%)	No.	(%)	No.	(%)
Blood pressure check	61	(91.8)	36	(100.0)	97	(95.0)
Urinalysis	61	(86.9)	37	(100.0)	98	(91.8)
Funduscopic examination	63	(76.2)	36	(83.3)	99	(78.9)
Glycohemoglobin testing among insulin users	46	(41.3)	19	(57.9)	65	(46.2)
Self-monitoring of blood glucose among insulin users	54	(59.3)	31	(64.5)	85	(61.2)
Current smoker	63	(42.9)	36	(38.9)	99	(41.4)

*Includes only events for which responses from a physician or a family member were obtained during DCP investigation.

Diabetes Mellitus — Continued

Between 50% and 85% of the acute and chronic complications that are associated with diabetes and contribute to mortality are preventable or treatable (*4*). Previous studies on premature mortality among persons with diabetes have found that a significant proportion of deaths were due to preventable factors. The mortality rate for persons with diabetes who are <45 years of age has been reported to be 8 times that of the same age group in the general population (*2*). A detailed review of Washington State death certificates revealed that almost one-third of the deaths of persons <45 years of age with diabetes were due to acute complications for which there is definitive therapy (*2*). In a study in Great Britain, "neglect of diabetes" was considered a contributing factor in 27% of 447 deaths involving persons with diabetes who died at <50 years of age (*5*).

The rates of routine care practices of blood pressure check and urinalysis testing in this reported cohort were high. However, all persons with diabetes would be expected to have such basic examinations, especially in the last year of life when manifest complications of diabetes cause many to seek more health care. The rates of utilization of state-of-the-art care technologies, such as glycohemoglobin measurement or self-monitoring of blood glucose, were considerably lower and might be a more sensitive reflection of the quality of care. Finally, considering that this group is already at high risk for vascular disease, the rate of smoking was high.

With advancing age, the frequency of complications among persons with diabetes increases, and the potential to prevent complications and attendant mortality decreases. The greatest potential to prevent mortality and years of potential life lost from diabetes exists among the youngest age groups. Problems that can be remedied by improved health care for this age group could also be expected to be remediable for the rest of the diabetic population. Thus, recommendations for preventing future deaths among persons <45 years of age should benefit the entire diabetic population.

The combination of alcohol and diabetes appears to be of particular concern. Alcohol has well-observed adverse effects on the health of persons with diabetes. Metabolic disturbances and compromise of the discipline and self-care that is integral to overall diabetes care are among these effects (*6*).

The preponderance of males in this cohort is unexplained. The higher mortality rate for males in part reflects the higher mortality experienced by males in the general population. It may also be related to a lower quality of care, but this warrants further investigation.

Sentinel health event surveillance in diabetes has the potential of illuminating the factors that contribute to premature mortality in the diabetic population and of forming the basis for systematic public health strategies to address diabetic health care problems. The system may then provide a means for measuring success or failure of strategies over time.

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Epidemiologic Notes and Reports

Staphylococcal Food Poisoning from Turkey at a Country Club Buffet — New Mexico

An outbreak of acute gastrointestinal illness followed a buffet served to approximately 855 people at a New Mexico country club on March 30, 1986. Of the 162 persons interviewed, 67 (35%) were ill with diarrhea, nausea, or vomiting. Twenty-four required emergency medical treatment or hospitalization. Of the 67 patients, 59 (88%) reported diarrhea; 52 (78%), nausea; 52 (78%), vomiting; 44 (66%), abdominal cramps; 30 (45%), headaches; 16 (34%), fever; and three (4%), bloody stool. Incubation periods ranged from 1.5 hours to 27.5 hours with a mean of 5.5 hours and a median of 4 hours. Duration of illness ranged from 1 to 88 hours with a mean of 26.3 hours and a median of 16 hours.

Three food items (turkey, poultry dressing, and gravy) were significantly associated with illness. For turkey, the odds ratio (OR) = 5.5 and the confidence limits (CL) = 2.3-13.1; for dressing, OR = 17.9 and CL = 6.1-56.4; and for gravy, OR = 2.9 and CL = 1.4-5.9. Bacteriologic cultures of the turkey and dressing yielded $4x10^7$ and $3x10^6$ *Staphylococcus aureus* organisms per gram respectively. Small concentrations of *S. aureus* were found in other foods that were not associated with illness, suggesting some degree of cross-contamination. Preformed staphylococcal enterotoxin type C was found in the turkey but not in the dressing.

S. aureus phage type 95 was isolated from the turkey and dressing, one food handler's nares (nasal passages) and stools, the nares of a second food handler, and the stools of a third. In addition, *S. aureus* that either could not be typed or was of another phage type was isolated from stools and nares of other food handlers and restaurant patrons. Two food handlers had open sores on their hands, but coagulase-positive staphylococci were not isolated from these sores. Although all of the food handlers had eaten at the buffet, none of them had gastrointestinal symptoms.

Review of food handling procedures indicated that the turkey had cooled for 3 hours at room temperature after cooking—a time and temperature sufficient for bacterial proliferation and toxin production. It was believed that the same utensils were used for both the turkey and other foods before and after cooking.

This same country club had experienced another foodborne outbreak in July 1984. The source of this outbreak was staphylococcal contamination of burritos and tacos. The ingredients had been cooked, assembled by hand, and then placed in a snack bar at room temperature. Phage typing was not performed. None of the food handlers with *S. aureus* isolated during investigation of the current outbreak were reported to have been working at the country club in July 1984.

After both outbreaks, food handlers were retrained by state environmental health personnel. Special emphasis was placed on increased hand washing, handling food only with gloves or implements, maintaining food below 45F (7.2C) or above 140F (60C), using smaller portions during cooling, maintaining better equipment and utensil sanitation, and exercising better management and supervision.

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Staphylococcal Food Poisoning — Continued

Editorial Note: Epidemiologic and bacteriologic data in this large outbreak strongly implicate turkey and dressing as the vehicle. Turkey has accounted for 10% to 21% of all bacterial foodborne outbreaks for which a vehicle has been determined (*1*). Such outbreaks are particularly frequent around the Thanksgiving and Christmas holidays. The large number of people who may eat the meat of a single bird may amplify errors in preparation and make turkey-associated outbreaks more likely to be detected. Cooking turkey calls for particular care because of the large volume of meat to be heated and cooled, the practice of preparing it the day before it is served, and the amount of handling needed to remove the meat from the carcass (*2*). The pathogens most frequently causing turkey-related outbreaks are *Clostridium perfringens* (36% of such outbreaks reported in 1982), *Salmonella* (36%), and *Staphylococcus aureus* (27%) (*3*).

This report illustrates several characteristics of staphylococcal foodborne outbreaks. Outbreaks most frequently involve foods high in protein. From 1977 to 1981, approximately 25 outbreaks of staphylococcal foodborne disease were reported to CDC annually. The most

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TABLE I. Summary—cases specified notifiable diseases, United States

Disease	45th Week Ending			Cumulative, 45th Week Ending		
	Nov. 8, 1986	Nov. 9, 1985	Median 1981-1985	Nov. 8, 1986	Nov. 9, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	258	202	N	11,413	6,863	N
Aseptic meningitis	217	307	228	8,974	9,075	8,474
Encephalitis: Primary (arthropod-borne & unspec.)	26	30	26	1,062	1,148	1,337
Post-infectious	1	-	1	90	110	81
Gonorrhea: Civilian	15,930	17,217	17,153	767,837	770,375	782,625
Military	209	478	498	14,420	18,345	21,192
Hepatitis: Type A	453	508	484	19,437	19,730	19,730
Type B	459	518	449	22,098	22,517	20,670
Non A, Non B	57	70	N	3,030	3,576	N
Unspecified	95	128	128	3,862	5,010	6,320
Legionellosis	14	8	N	660	651	N
Leprosy	7	6	5	219	318	210
Malaria	15	7	11	973	892	892
Measles: Total*	87	21	21	5,850	2,627	2,439
Indigenous	87	20	N	5,552	2,198	N
Imported	-	1	N	298	429	N
Meningococcal infections: Total	33	47	47	2,109	2,068	2,365
Civilian	33	47	47	2,107	2,061	2,350
Military	-	-	-	2	7	12
Mumps	116	44	62	4,453	2,574	2,879
Pertussis	90	99	35	3,855	3,070	2,069
Rubella (German measles)	8	8	15	452	591	878
Syphilis (Primary & Secondary): Civilian	628	576	576	23,312	23,367	26,766
Military	1	1	4	140	144	334
Toxic Shock syndrome	6	7	N	302	328	N
Tuberculosis	467	388	440	18,953	18,412	20,217
Tularemia	4	1	2	134	160	238
Typhoid fever	11	4	7	276	326	344
Typhus fever, tick-borne (RMSF)	7	5	6	728	658	938
Rabies, animal	87	85	94	4,749	4,702	5,371

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1986		Cum. 1986
Anthrax	-	Leptospirosis (Mo. 1, Fla. 2, Tex. 1)	35
Botulism: Foodborne	13	Plague	7
Infant (Calif. 2)	46	Poliomyelitis, Paralytic	1
Other	1	Psittacosis	84
Brucellosis	75	Rabies, human	-
Cholera	3	Tetanus	57
Congenital rubella syndrome	10	Trichinosis	31
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine) (Fla. 1)	45
Diphtheria	-		

**There were no cases of internationally imported measles reported for this week.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending November 8, 1986 and November 9, 1985 (45th Week)

eporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
INITED STATES	11,413	217	1,062	90	767,837	770,375	453	459	57	95	14	219
EW ENGLAND	448	9	24	3	20,199	19,741	8	38	4	9	6	8
Maine	18	1	-	-	762	999	-	2	1	1	-	-
H	10	-	2	-	494	495	-	-	-	-	-	-
t	5	2	4	2	237	287	-	1	-	-	2	-
Mass	237	1	5	-	7,488	8,193	5	23	2	8	4	8
I	28	2	-	-	1,579	1,566	2	2	1	-	-	-
Conn	150	3	13	1	9,639	8,201	1	10	-	-	-	-
MID ATLANTIC	4,104	20	94	8	132,596	111,724	7	35	2	10	-	17
lpstate N Y	428	13	33	4	15,771	15,562	3	16	1	-	-	1
Y City	2,794	-	18	1	76,949	54,766	-	1	-	10	-	15
J	615	7	10	-	16,962	16,806	4	18	1	-	-	-
a	267	-	33	3	22,914	24,590	-	-	-	-	-	1
N CENTRAL	694	36	325	11	100,463	101,400	17	31	4	2	-	4
Ohio	154	13	126	3	25,405	27,212	6	7	-	1	-	-
d	59	-	77	3	11,046	11,122	3	8	-	-	-	-
	329	3	46	4	24,295	24,122	1	3	2	-	-	4
Mich	116	20	50	1	32,386	29,210	7	12	2	1	-	1
Wis	36	-	26	-	7,079	9,734	-	1	-	-	-	-
V N CENTRAL	217	19	77	9	33,201	36,206	2	21	2	-	1	4
Minn	83	2	33		4,741	5,362	1	4	1	-	-	2
owa	18	6	24	-	3,393	3,815	-	1	1	-	-	-
Mo	71	10	1	-	16,412	17,450	-	15	-	-	1	-
Dak	2	-	4	-	279	245	-	-	-	-	-	-
Dak	2	1	11	-	689	691	1	-	-	-	-	-
lebr	11	-	1	1	2,489	3,167	-	-	-	-	-	-
ans	30	-	3	8	5,198	5,476	-	1	-	-	-	2
ATLANTIC	1,625	41	138	36	199,298	201,359	39	91	13	9	2	3
el	20	2	6	-	3,302	3,878	3	1	2	1	1	-
Md	159	5	30	1	23,277	25,307	3	6	3	-	-	-
C	209	-	-	1	14,864	13,752	1	3	-	-	-	-
a	135	1	36	1	16,294	16,649	8	5	-	-	-	1
V Va	7	4	45	-	1,917	2,287	-	-	1	-	-	-
C	67	6	17	2	31,177	32,166	6	13	-	2	-	-
C	43	1	-	-	16,953	19,164	-	6	-	-	1	-
a	261	7	-	1	32,997	39,270	1	14	4	-	-	-
la	724	15	4	30	58,477	48,886	17	43	3	6	-	2
S CENTRAL	138	11	60	4	61,743	66,263	5	28	3	1	-	1
y	25	4	30	1	6,810	7,537	3	7	-	-	-	-
enn	67	2	7	1	23,448	25,479	-	17	2	1	-	-
la	25	3	22	2	18,040	19,762	1	4	1	-	-	1
Miss	21	2	1	-	13,445	13,485	1	-	-	-	-	-
V S CENTRAL	1,057	37	167	6	89,381	97,326	61	37	7	23	1	21
rk	28	2	-	2	8,447	9,277	2	4	1	-	-	1
a	137	5	15	-	15,687	18,368	4	13	-	-	-	1
kla	41	2	20	-	10,278	10,779	11	7	3	4	1	-
ex	851	28	132	4	54,969	58,902	44	13	3	19	-	19
MOUNTAIN	302	11	37	1	22,687	24,141	66	61	8	17	1	13
Mont	4	1	1	1	586	688	1	1	-	1	-	
daho	3	-	-	-	780	827	10	2	-	-	-	-
Vyo	4	-	2	-	484	566	-	1	-	-	-	-
olo	146	1	4	-	5,713	7,028	3	8	2	6	1	3
Mex	21	1	3	-	2,400	2,763	12	12	-	-	-	-
riz	74	7	18	-	7,425	7,193	33	22	4	10	-	7
tah	18	1	7	-	969	1,177	3	1	1	-	-	1
lev	32	-	2	-	4,330	3,899	4	4	1	-	-	2
ACIFIC	2,828	33	140	12	108,269	112,215	248	127	14	24	3	148
Vash	148	4	12	-	8,065	8,786	28	12	2	1	-	16
reg	52	-	-	-	4,659	5,640	37	16	-	-	-	-
alif	2,573	25	121	12	92,346	93,607	177	97	12	23	3	102
laska	12	-	6	-	2,346	2,678	6	1	-	-	-	-
awaii	43	4	1	-	1,105	1,504	-	1	-	-	-	29
uam	-	U	-	-	172	172	U	U	U	U	U	1
R	77	-	5	1	2,111	2,742	-	4	-	2	-	7
I	3	U	-	-	238	364	U	U	U	U	U	-
ac Trust Terr	-	U	-	-	413	766	U	U	U	U	U	43
mer Samoa	-	-	-	-	46	-	-	-	-	-	-	3

Not notifiable U Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 8, 1986 and November 9, 1985 (45th Week)

Reporting Area	Malaria	Measles (Rubeola)					Meningococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	973	87	5,552	-	298	2,627	2,109	116	4,453	90	3,855	3,070	8	452	591
NEW ENGLAND	60	-	82	-	21	126	147	2	62	7	155	194	-	9	12
Maine	2	-	12	-	1	1	25	-	-	-	2	9	-	-	-
N H	3	-	43	-	-	-	6	-	14	-	79	105	-	1	2
Vt	2	-	-	-	-	-	18	-	4	-	3	3	-	1	-
Mass	32	-	24	-	13	118	37	2	12	7	41	46	-	4	6
R I	7	-	2	-	-	-	20	-	10	-	6	22	-	2	-
Conn	14	-	1	-	7	7	41	-	22	-	24	9	-	1	4
MID ATLANTIC	135	33	1,730	-	34	232	336	5	187	6	190	226	-	36	228
Upstate N Y	45	-	77	-	24	85	116	2	62	2	120	106	-	27	18
N Y City	31	31	724	-	4	79	68	-	29	-	10	29	-	5	185
N J	34	-	905	-	4	28	30	-	46	-	17	11	-	4	11
Pa	25	2	24	-	2	40	122	3	50	4	43	80	-	-	14
E N CENTRAL	59	-	1,053	-	28	535	301	51	2,994	-	359	736	-	45	37
Ohio	19	-	-	-	10	60	125	5	127	-	159	101	-	1	-
Ind	2	-	27	-	11	57	31	3	40	-	29	188	-	-	1
Ill	16	-	689	-	4	299	72	34	2,271	-	36	72	-	34	19
Mich	18	-	59	-	-	60	63	9	317	-	35	46	-	8	16
Wis	4	-	278	-	3	59	9	-	239	-	97	329	-	2	1
W N CENTRAL	29	-	322	-	17	12	100	4	120	51	1,415	213	-	13	19
Minn	8	-	45	-	4	6	21	2	4	-	51	107	-	1	2
Iowa	1	-	133	-	1	-	11	2	38	-	19	28	-	1	1
Mo	11	-	25	-	6	3	34	-	21	1	21	29	-	1	7
N Dak	-	-	25	-	1	2	1	-	3	-	5	9	-	1	2
S Dak	2	-	-	-	-	-	5	-	1	-	14	3	-	-	-
Nebr	4	-	-	-	-	-	11	-	-	-	7	9	-	-	-
Kans	3	-	94	-	5	1	17	-	53	50	1,298	28	-	9	7
S ATLANTIC	115	52	737	-	55	330	381	-	218	4	733	497	1	9	52
Del	1	-	1	-	-	-	4	-	-	-	227	2	-	-	2
Md	14	-	26	-	9	113	45	-	20	-	163	283	-	-	6
D C	3	-	-	-	1	31	4	-	-	-	-	-	-	-	-
Va	30	-	36	-	24	28	66	-	41	-	39	19	-	-	2
W Va	4	-	2	-	-	33	3	-	48	-	23	4	-	-	9
N C	5	-	3	-	1	9	61	-	22	1	74	31	-	-	1
S C	6	-	274	-	-	3	41	-	13	-	18	2	-	-	3
Ga	13	-	79	-	14	8	54	-	28	3	132	92	-	-	-
Fla	39	52	316	-	6	105	103	-	46	-	57	64	1	9	29
E S CENTRAL	20	2	60	-	12	7	112	10	56	-	47	58	-	4	3
Ky	6	-	-	-	6	5	25	-	6	-	5	8	-	4	3
Tenn	1	2	57	-	1	1	37	10	45	-	16	25	-	-	-
Ala	9	-	1	-	1	-	36	-	4	-	25	21	-	-	-
Miss	4	-	2	-	4	1	14	-	1	-	1	4	-	-	-
W S CENTRAL	96	-	680	-	38	436	194	34	253	7	237	511	6	70	37
Ark	1	-	276	-	2	-	27	28	61	2	20	14	-	-	1
La	17	-	4	-	-	42	26	-	3	2	15	16	-	-	-
Okla	10	-	37	-	2	1	29	N	N	3	119	164	-	-	1
Tex	68	-	363	-	34	393	112	6	189	-	83	317	6	70	35
MOUNTAIN	36	-	302	-	29	539	101	-	237	8	263	208	1	24	6
Mont	-	-	-	-	8	137	10	-	5	4	19	10	-	2	-
Idaho	1	-	1	-	-	137	4	-	8	-	42	15	-	-	2
Wyo	-	-	-	-	-	5	2	-	-	-	4	-	-	1	-
Colo	12	-	2	-	8	13	17	-	14	-	66	81	-	1	-
N Mex	5	-	33	-	7	6	10	N	N	2	22	12	-	-	2
Ariz	12	-	252	-	6	241	22	-	187	-	65	38	-	2	1
Utah	3	-	12	-	-	-	10	-	15	2	41	52	1	15	-
Nev	3	-	2	-	-	-	26	-	8	-	4	-	-	3	1
PACIFIC	423	-	586	-	64	410	437	10	326	7	456	427	-	242	197
Wash	28	-	139	-	28	133	60	1	16	1	145	75	-	17	14
Oreg	15	-	7	-	4	5	32	N	N	-	12	45	-	4	1
Calif	379	-	413	-	30	248	322	8	283	5	285	260	-	215	133
Alaska	-	-	-	-	-	-	13	-	6	1	3	30	-	-	1
Hawaii	1	-	27	-	2	24	11	1	21	-	14	17	-	6	48
Guam	1	U	4	U	1	11	-	U	4	U	-	-	U	4	2
P R	4	-	36	-	-	67	3	-	33	-	19	12	-	62	27
V I	-	U	-	U	-	10	-	U	16	U	-	-	U	-	-
Pac Trust Terr	-	U	-	U	-	-	1	U	11	U	-	-	U	2	-
Amer Samoa	-	-	2	-	-	-	-	-	5	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 8, 1986 and November 9, 1985 (45th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	23,312	23,367	6	18,953	18,412	134	276	728	4,749
NEW ENGLAND	429	514	-	614	629	1	16	13	8
Maine	19	13	-	34	40	-	-	-	-
N H	10	36	-	23	21	-	-	2	1
Vt	9	7	-	16	8	-	-	-	2
Mass	225	254	-	338	373	1	13	4	-
R I	19	15	-	42	47	-	-	3	3
Conn	147	189	-	161	140	-	3	4	2
MID ATLANTIC	3,270	3,159	1	3,745	3,314	1	23	35	607
Upstate N Y	159	234	-	528	578	-	4	19	76
N Y City	1,841	1,929	-	1,972	1,602	-	10	5	-
N J	578	602	1	631	456	1	8	2	17
Pa	692	394	-	614	678	-	1	9	514
E N CENTRAL	771	876	2	2,246	2,247	-	22	54	130
Ohio	110	134	1	392	391	-	8	48	14
Ind	100	74	-	247	284	-	2	-	17
Ill	363	400	-	958	980	-	3	2	39
Mich	160	210	1	549	466	-	6	4	24
Wis	38	58	-	100	126	-	3	-	36
W N CENTRAL	187	202	1	557	515	37	9	48	743
Minn	31	40	-	130	109	-	2	1	112
Iowa	7	18	-	46	53	1	-	1	167
Mo	98	108	1	272	247	28	6	24	67
N Dak	5	2	-	10	10	-	-	1	145
S Dak	9	6	-	26	27	3	-	6	170
Nebr	11	7	-	12	16	1	-	6	29
Kans	26	21	-	61	53	4	1	9	53
S ATLANTIC	6,999	6,735	-	3,797	3,754	10	45	328	1,181
Del	52	35	-	40	42	-	1	1	1
Md	394	421	-	277	336	2	15	29	528
D C	268	296	-	136	136	1	4	-	31
Va	306	263	-	314	359	2	10	52	177
W Va	20	22	-	110	95	-	3	10	48
N C	450	600	-	536	476	2	4	125	9
S C	607	706	-	490	457	-	-	70	60
Ga	1,304	1,203	-	636	635	3	-	39	180
Fla	3,598	3,189	-	1,258	1,218	-	8	2	147
E S CENTRAL	1,553	1,815	-	1,674	1,609	13	3	108	315
Ky	63	61	-	369	393	5	-	22	91
Tenn	549	568	-	498	477	6	1	44	109
Ala	455	584	-	527	472	1	1	24	112
Miss	486	602	-	280	267	1	1	18	3
W S CENTRAL	4,590	5,376	-	2,394	2,360	58	23	131	661
Ark	220	290	-	323	287	40	-	10	152
La	792	945	-	378	335	1	1	1	22
Okla	122	168	-	222	227	12	2	103	57
Tex	3,456	3,973	-	1,471	1,511	5	20	17	430
MOUNTAIN	521	659	1	454	491	11	16	10	607
Mont	7	6	-	31	46	1	1	4	195
Idaho	14	5	-	20	22	-	-	2	9
Wyo	2	9	-	-	5	1	-	1	255
Colo	118	189	1	40	73	3	1	3	29
N Mex	62	112	-	86	79	1	1	-	6
Ariz	219	276	-	211	219	-	9	-	95
Utah	18	8	-	31	17	4	3	-	7
Nev	81	54	-	35	30	1	1	-	11
PACIFIC	4,992	4,031	1	3,472	3,493	3	119	1	497
Wash	120	97	-	179	198	1	3	-	5
Oreg	101	90	-	111	116	-	-	-	1
Calif	4,730	3,781	1	2,980	2,926	1	110	1	483
Alaska	10	4	-	46	89	1	1	-	8
Hawaii	31	59	-	156	164	-	5	-	-
Guam	1	2	U	34	37	-	1	-	-
P R	777	758	-	288	307	-	5	-	41
V I	1	3	U	1	1	-	-	-	-
Pac Trust Terr	215	128	U	62	75	-	46	-	-
Amer Samoa	-	-	-	5	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending November 8, 1986 (45th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	599	430	114	33	8	14	49
Boston, Mass	159	91	43	18	3	4	14
Bridgeport, Conn	51	38	10	3	-	-	4
Cambridge, Mass	27	23	3	1	-	-	2
Fall River, Mass	24	17	4	1	1	1	2
Hartford, Conn	56	37	11	3	3	2	2
Lowell, Mass	22	13	8	1	-	-	2
Lynn, Mass	19	17	1	-	-	1	-
New Bedford, Mass	28	24	1	3	-	-	1
New Haven, Conn	42	31	6	2	1	2	1
Providence, R.I.	33	23	9	-	-	1	5
Somerville, Mass	7	5	2	-	-	-	1
Springfield, Mass	51	41	8	1	-	1	4
Waterbury, Conn	32	31	1	-	-	-	3
Worcester, Mass	48	39	7	-	-	2	8
MID ATLANTIC	2,318	1,532	472	200	55	59	108
Albany, N.Y.	53	35	7	3	5	3	1
Allentown, Pa	24	18	5	1	-	-	2
Buffalo, N.Y.	114	75	28	5	3	3	9
Camden, N.J.	35	25	6	2	1	2	2
Elizabeth, N.J.	31	24	5	2	-	-	1
Erie, Pa †	40	31	7	1	1	-	4
Jersey City, N.J.	53	36	11	3	2	1	3
N.Y. City, N.Y.	1,094	691	218	139	21	25	41
Newark, N.J.	72	31	19	11	7	4	6
Paterson, N.J.	32	20	6	3	2	1	2
Philadelphia, Pa	297	199	72	12	7	7	13
Pittsburgh, Pa †	130	85	29	9	3	4	2
Reading, Pa	30	23	5	2	-	-	2
Rochester, N.Y.	129	98	19	5	2	5	12
Schenectady, N.Y.	38	30	8	-	-	-	2
Scranton, Pa †	28	25	3	-	-	-	2
Syracuse, N.Y.	41	26	13	-	1	1	2
Trenton, N.J.	29	20	5	1	-	3	-
Utica, N.Y.	19	16	3	-	-	-	-
Yonkers, N.Y.	29	24	4	1	-	-	2
E.N. CENTRAL	2,187	1,421	479	157	56	74	73
Akron, Ohio	60	42	11	2	3	2	-
Canton, Ohio	32	28	4	-	-	-	2
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	118	81	20	9	1	7	9
Cleveland, Ohio	175	100	54	10	7	4	2
Columbus, Ohio	131	73	37	12	5	4	8
Dayton, Ohio	110	76	26	6	2	-	2
Detroit, Mich	261	144	50	39	11	17	6
Evansville, Ind	25	16	5	1	-	1	3
Fort Wayne, Ind	37	26	8	2	-	1	-
Gary, Ind	17	8	5	1	2	1	-
Grand Rapids, Mich	48	35	5	5	3	-	2
Indianapolis, Ind	159	105	36	8	5	5	3
Madison, Wis	20	15	4	1	-	-	3
Milwaukee, Wis	120	89	23	4	3	1	3
Peoria, Ill	64	47	11	2	1	3	5
Rockford, Ill	57	45	9	1	1	1	2
South Bend, Ind	40	29	6	2	2	1	-
Toledo, Ohio	97	66	23	6	-	2	7
Youngstown, Ohio	52	32	17	1	-	2	-
W.N. CENTRAL	771	534	141	54	27	15	52
Des Moines, Iowa	51	35	13	1	2	-	5
Duluth, Minn	35	29	5	-	1	-	1
Kansas City, Kans	36	20	10	4	2	-	-
Kansas City, Mo	118	80	26	8	1	3	12
Lincoln, Nebr	31	20	6	4	1	-	3
Minneapolis, Minn	140	102	24	9	2	3	9
Omaha, Nebr	81	60	8	6	6	1	5
St Louis, Mo	146	96	24	15	6	5	12
St Paul, Minn	66	43	12	3	5	3	1
Wichita, Kans	67	49	13	4	1	-	4
S. ATLANTIC	1,213	726	269	140	37	41	46
Atlanta, Ga	152	91	39	17	4	1	4
Baltimore, Md	187	109	45	20	5	8	5
Charlotte, N.C.	88	56	16	8	1	7	4
Jacksonville, Fla	73	45	17	9	1	1	2
Miami, Fla	118	60	24	17	12	5	2
Norfolk, Va	48	30	11	4	3	-	2
Richmond, Va	75	43	16	9	1	6	10
Savannah, Ga	48	30	10	7	-	1	3
St Petersburg, Fla	100	83	14	1	1	1	4
Tampa, Fla	71	50	8	8	2	3	3
Washington, D.C.	234	112	68	39	7	8	7
Wilmington, Del	19	17	1	1	-	-	-
E.S. CENTRAL	770	494	176	54	16	30	38
Birmingham, Ala	135	79	34	8	4	10	3
Chattanooga, Tenn	50	32	9	2	5	2	5
Knoxville, Tenn	75	47	18	7	2	1	5
Louisville, Ky	112	80	19	7	2	4	3
Memphis, Tenn	147	89	41	14	2	1	2
Mobile, Ala	78	51	14	7	1	5	7
Montgomery, Ala	36	27	8	-	-	1	2
Nashville, Tenn	137	89	33	9	-	6	11
W.S. CENTRAL	1,327	797	297	119	63	49	51
Austin, Tex	57	40	8	7	1	3	4
Baton Rouge, La	41	26	11	2	2	1	1
Corpus Christi, Tex	32	26	4	2	-	-	2
Dallas, Tex	212	119	54	22	10	7	5
El Paso, Tex	60	32	13	6	1	8	3
Fort Worth, Tex	118	70	24	13	8	3	2
Houston, Tex	315	178	75	32	18	14	14
Little Rock, Ark	57	40	9	3	1	2	3
New Orleans, La	131	76	34	10	9	2	-
San Antonio, Tex	186	119	36	12	11	8	10
Shreveport, La	32	20	8	4	-	-	2
Tulsa, Okla	86	54	23	6	2	1	5
MOUNTAIN	687	453	131	62	25	26	31
Albuquerque, N.Mex	96	67	15	8	3	3	3
Colo Springs, Colo	38	24	8	2	1	3	7
Denver, Colo	112	73	17	8	4	10	5
Las Vegas, Nev	138	87	34	12	2	3	6
Ogden, Utah	18	14	4	-	-	-	2
Phoenix, Ariz	137	85	28	13	7	4	2
Pueblo, Colo	15	11	3	-	1	-	3
Salt Lake City, Utah	44	30	5	4	3	2	1
Tucson, Ariz	89	62	17	5	4	1	2
PACIFIC	1,835	1,229	333	166	64	38	124
Berkeley, Calif	19	14	2	1	-	2	1
Fresno, Calif	69	50	8	6	4	1	7
Glendale, Calif	26	22	2	1	-	-	2
Honolulu, Hawaii	71	48	13	7	3	-	4
Long Beach, Calif	110	69	20	10	5	5	15
Los Angeles, Calif	477	291	102	54	27	-	23
Oakland, Calif	46	32	6	4	2	2	4
Pasadena, Calif	20	14	3	2	1	-	1
Portland, Oreg	125	94	21	3	3	4	5
Sacramento, Calif	142	100	26	11	2	3	15
San Diego, Calif	152	108	26	13	3	2	16
San Francisco, Calif	163	99	37	21	2	4	4
San Jose, Calif	159	114	19	16	6	4	17
Seattle, Wash	145	96	26	13	4	6	5
Spokane, Wash	66	44	16	1	2	3	3
Tacoma, Wash	45	34	6	3	-	2	2
TOTAL	11,707††	7,616	2,412	975	351	346	572

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*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages.

§ Data not available. Figures are estimates based on average of past 4 weeks.

Table V. Estimated years of potential life lost before age 65 and cause-specific mortality, by cause of death — United States, 1984

Cause of mortality (Ninth Revision ICD)	Years of potential life lost by persons dying in 1984*	Cause-specific mortality† (rate/100,000)
ALL CAUSES (Total)	11,761,000	866.7
Unintentional injuries§ (E800-E949)	2,308,000	40.1
Malignant neoplasms (140-208)	1,803,000	191.6
Diseases of the heart (390-398, 402, 404-429)	1,563,000	324.4
Suicide, homicide (E950-E978)	1,247,000	20.6
Congenital anomalies (740-759)	684,000	5.6
Prematurity¶ (765, 769)	470,000	3.5
Sudden infant death syndrome (798)	314,000	2.4
Cerebrovascular diseases (430-438)	266,000	65.6
Chronic liver diseases and cirrhosis (571)	233,000	11.3
Pneumonia and influenza (480-487)	163,000	25.0
Chronic obstructive pulmonary diseases (490-496)	123,000	29.8
Diabetes mellitus (250)	**119,000**	**15.6**

*For details of calculation, see footnotes for Table V, *MMWR* 1986;35:27.

†Cause-specific mortality rates as reported in the MVSR are compiled from a 10% sample of all deaths.

§Equivalent to accidents and adverse effects.

¶Category derived from disorders relating to short gestation and respiratory distress syndrome.

Staphylococcal Food Poisoning – Continued

common vehicles were ham (27% of outbreaks with a known vehicle), potato or egg salad (15%), and poultry (11%) (*4*). An outbreak occurs when a contaminated food is held at inappropriate temperatures long enough to allow the organisms to elaborate toxin. The toxin is heat stable, and reheating foods will not prevent the illness. Human carriers are presumed to be the source of the enterotoxigenic *S. aureus*, but carriers often do not have visible lesions. Thus the absence of nasal or hand lesions is no guarantee of safety (*4*). As in this outbreak, the most frequently found problem is a critical error in food handling that facilitates bacterial contamination and growth (*5*). Proper education and supervision, along with thorough investigation of outbreaks, remain the cornerstones of prevention of foodborne illness.

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Staphylococcal Food Poisoning – Continued

3. CDC. Annual summary 1982. Foodborne disease outbreaks surveillance. Atlanta, Georgia: Public Health Service, 1985; DHHS publication no. (CDC)85-8185.
4. Holmberg SD, Blake PA. Staphylococcal food poisoning in the United States: new facts and old misconceptions. JAMA 1984;251:487-9.
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Notice to Readers

Holiday Printing Schedule

Because of the Thanksgiving holiday, Volume 35, Number 47, of the MMWR will be printed a day late. Therefore, distribution will begin on Friday, November 28, instead of on Thursday, November 27.

TABLE I. Summary – cases specified notifiable diseases, United States

Disease	46th Week Ending			Cumulative, 46th Week Ending		
	Nov. 15, 1986	Nov. 16, 1985	Median 1981-1985	Nov. 15, 1986	Nov. 16, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	243	118	N	11,663	6,981	N
Aseptic meningitis	233	231	231	9,281	9,306	8,665
Encephalitis: Primary (arthropod-borne & unspec.)	16	31	37	1,082	1,179	1,377
Post-infectious	1	-	-	91	110	81
Gonorrhea: Civilian	16,877	15,920	17,601	784,918	786,295	800,226
Military	449	357	357	14,871	18,702	21,595
Hepatitis: Type A	477	444	444	19,912	20,174	20,174
Type B	449	540	493	22,532	23,057	21,127
Non A, Non B	51	64	N	3,084	3,640	N
Unspecified	80	77	118	3,936	5,087	6,438
Legionellosis	10	18	N	689	669	N
Leprosy	-	16	5	219	334	215
Malaria	19	28	20	994	920	920
Measles: Total*	4	37	25	5,852	2,664	2,443
Indigenous	4	37	N	5,561	2,235	N
Imported	-	-	N	291	429	N
Meningococcal infections: Total	34	34	55	2,145	2,102	2,410
Civilian	34	34	55	2,143	2,095	2,395
Military	-	-	-	2	7	12
Mumps	98	31	49	4,553	2,605	2,928
Pertussis	31	83	31	3,874	3,153	2,097
Rubella (German measles)	8	3	15	462	594	893
Syphilis (Primary & Secondary): Civilian	505	430	594	23,833	23,797	27,393
Military	3	1	4	143	145	338
Toxic Shock syndrome	5	5	N	307	333	N
Tuberculosis	417	340	416	19,374	18,752	20,632
Tularemia	7	6	6	141	166	250
Typhoid fever	3	14	7	279	340	349
Typhus fever, tick-borne (RMSF)	4	10	6	730	688	943
Rabies, animal	70	98	98	4,836	4,800	5,432

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1986		Cum. 1986
Anthrax	-	Leptospirosis	35
Botulism: Foodborne (Calif. 2, Alaska 2)	17	Plague	7
Infant (Calif. 11)	57	Poliomyelitis, Paralytic	1
Other	1	Psittacosis	84
Brucellosis (Mo. 1)	76	Rabies, human	-
Cholera	3	Tetanus	57
Congenital rubella syndrome	10	Trichinosis	31
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	45
Diphtheria	-		

**There were no cases of internationally imported measles reported for this week.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending November 15, 1986 and November 16, 1985 (46th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis: Primary	Encephalitis: Post-infectious	Gonorrhea (Civilian)		Hepatitis (Viral), by type: A	Hepatitis (Viral), by type: B	Hepatitis (Viral), by type: NA,NB	Hepatitis (Viral), by type: Unspecified	Legionellosis	Leprosy
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	11,663	233	1,082	91	784,918	786,295	477	449	51	80	10	219
NEW ENGLAND	470	7	25	3	20,809	20,148	13	31	1	7	-	8
Maine	19	-	-	-	771	1,029	-	1	-	-	-	-
N.H.	13	1	2	-	502	506	-	-	-	-	-	-
Vt	5	1	4	2	240	295	-	1	-	-	-	-
Mass	254	1	5	-	7,599	8,362	5	11	-	7	-	8
R.I.	29	-	-	-	1,602	1,625	2	6	-	-	-	-
Conn	150	4	14	1	10,095	8,331	6	12	1	-	-	-
MID ATLANTIC	4,206	12	94	8	135,935	113,408	12	30	2	8	-	17
Upstate N.Y.	458	4	33	4	16,210	15,932	-	6	-	1	-	1
N.Y. City	2,864	2	18	1	78,836	55,066	3	1	1	4	-	15
N.J.	617	6	10	-	17,542	17,200	9	23	1	3	-	-
Pa	267	-	33	3	23,347	25,210	-	-	-	-	-	1
E.N. CENTRAL	695	49	333	11	102,317	104,069	20	38	4	2	-	4
Ohio	154	17	128	3	26,222	28,642	4	7	1	-	-	-
Ind	59	6	78	3	11,214	11,240	6	2	1	2	-	-
Ill	329	7	50	4	24,539	24,346	4	4	-	-	-	4
Mich	116	19	51	1	32,939	29,894	6	25	2	-	-	1
Wis	37	-	26	-	7,151	9,947	-	-	-	-	-	-
W.N. CENTRAL	219	9	79	9	33,720	36,921	8	10	1	-	1	4
Minn	83	1	33	-	4,844	5,462	-	-	-	-	-	2
Iowa	18	5	25	-	3,444	3,966	-	1	-	-	1	-
Mo	72	1	2	-	16,572	17,826	-	5	-	-	-	-
N. Dak	2	-	4	-	283	253	-	-	-	-	-	-
S. Dak	2	-	11	-	701	707	1	-	-	-	-	-
Nebr	11	1	1	1	2,541	3,167	3	-	-	-	-	-
Kans	31	1	3	8	5,335	5,540	4	4	1	-	-	2
S. ATLANTIC	1,691	52	139	37	203,700	205,111	35	110	10	6	8	3
Del	21	1	6	-	3,358	3,946	2	1	-	-	-	-
Md	159	7	30	1	23,892	25,749	2	4	-	1	-	-
D.C.	222	2	-	1	15,186	14,073	-	-	-	-	-	-
Va	135	19	37	1	16,675	17,127	6	31	6	2	-	1
W. Va	7	1	45	-	1,985	2,329	2	1	1	1	-	-
N.C.	67	2	17	2	31,525	32,669	-	13	-	2	6	-
S.C.	45	1	-	-	17,435	19,523	1	24	-	-	1	-
Ga	261	3	-	1	33,742	40,049	6	12	1	-	-	-
Fla	774	16	4	31	59,902	49,646	16	24	2	-	1	2
E.S. CENTRAL	141	12	61	4	63,106	67,916	4	26	1	2	-	1
Ky	28	-	30	1	6,951	7,804	-	1	1	-	-	-
Tenn	67	3	8	1	23,927	26,024	-	11	-	-	-	-
Ala	25	3	22	2	18,454	20,371	3	5	-	-	-	1
Miss	21	6	1	-	13,774	13,717	1	9	-	2	-	-
W.S. CENTRAL	1,058	38	171	6	90,758	99,368	48	48	8	24	1	21
Ark	29	4	-	2	8,676	9,421	1	4	1	-	1	1
La	137	3	15	-	15,756	18,897	1	5	-	2	-	1
Okla	41	2	20	-	10,516	11,080	2	6	2	2	-	-
Tex	851	29	136	4	55,810	59,970	44	33	5	20	-	19
MOUNTAIN	310	10	37	1	23,287	24,641	78	40	9	6	-	13
Mont	4	-	1	1	586	711	-	-	-	-	-	-
Idaho	3	1	-	-	793	839	5	2	-	-	-	-
Wyo	4	1	2	-	491	579	-	-	-	-	-	-
Colo	146	1	4	-	5,954	7,156	8	4	1	2	-	3
N. Mex	22	2	3	-	2,457	2,786	15	4	-	3	-	-
Ariz	80	2	18	-	7,557	7,371	49	22	3	-	-	7
Utah	18	3	7	-	988	1,199	-	-	4	-	-	1
Nev	33	-	2	-	4,461	4,000	1	8	1	-	-	2
PACIFIC	2,873	44	143	12	111,286	114,713	259	116	15	25	-	148
Wash	157	8	12	-	8,204	8,996	81	41	3	7	-	16
Oreg	52	-	-	-	4,773	5,739	25	13	2	1	-	-
Calif	2,603	31	123	12	95,040	95,681	149	59	10	16	-	102
Alaska	12	-	7	-	2,387	2,770	2	2	-	1	-	-
Hawaii	49	5	1	-	1,134	1,527	2	1	-	-	-	29
Guam	-	-	-	-	184	174	-	-	-	-	-	1
P.R.	77	1	5	1	2,159	2,830	2	6	-	2	-	7
V.I.	3	-	-	-	247	369	-	-	-	-	-	-
Pac. Trust Terr	-	-	-	-	424	766	4	-	-	1	-	53
Amer. Samoa	-	-	-	-	51	-	-	-	-	-	-	3

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 15, 1986 and November 16, 1985 (46th Week)

Reporting Area	Malaria	Measles (Rubeola)					Meningococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	994	4	5,561	-	291	2,664	2,145	98	4,553	31	3,874	3,153	8	462	594
NEW ENGLAND	61	1	88	-	16	126	149	-	62	-	156	198	-	9	12
Maine	2	-	12	-	1	1	26	-	-	-	2	9	-	-	-
N H	3	-	43	-	-	-	6	-	14	-	80	107	-	1	2
Vt	2	-	-	-	-	-	18	-	4	-	3	3	-	1	-
Mass	32	-	24	-	13	118	38	-	12	-	41	46	-	4	6
R I	7	-	2	-	-	-	20	-	10	-	6	22	-	2	-
Conn	15	1	7	-	2	7	41	-	22	-	24	11	-	1	4
MID ATLANTIC	138	-	1,729	-	34	232	339	5	193	1	193	232	-	36	228
Upstate N Y	45	-	77	-	24	85	118	-	62	-	121	107	-	27	18
N Y City	31	-	723	-	4	79	69	-	29	-	10	29	-	5	185
N J	37	-	905	-	4	28	30	1	48	-	18	11	-	4	11
Pa	25	-	24	-	2	40	122	4	54	1	44	85	-	-	14
E N CENTRAL	61	1	1,055	-	28	562	307	44	3,039	6	368	757	2	49	37
Ohio	19	-	-	-	10	60	126	1	128	-	159	109	-	1	-
Ind	2	-	27	-	11	57	32	-	40	6	35	188	-	-	1
Ill	16	1	691	-	4	326	74	29	2,300	-	36	73	2	38	19
Mich	20	-	59	-	-	60	64	13	330	-	35	47	-	8	16
Wis	4	-	278	-	3	59	10	1	241	-	100	340	-	2	1
W N CENTRAL	29	-	322	-	17	12	102	16	136	8	1,405	223	1	14	19
Minn	8	-	45	-	4	6	21	8	12	-	51	112	-	1	2
Iowa	1	-	133	-	1	-	11	7	45	-	19	30	-	1	1
Mo	11	-	25	-	6	3	33	1	22	1	22	31	-	1	7
N Dak	-	-	25	-	1	2	1	-	3	-	5	10	-	1	2
S Dak	2	-	-	-	-	-	5	-	1	-	14	3	-	-	-
Nebr	4	-	-	-	-	-	11	-	-	3	10	9	-	-	-
Kans	3	-	94	-	5	1	20	-	53	4	1,284	28	1	10	7
S ATLANTIC	116	1	735	-	56	330	391	5	223	7	740	509	-	9	52
Del	1	-	1	-	-	-	4	-	-	-	227	2	-	-	2
Md	14	-	26	-	9	113	46	4	24	-	163	291	-	-	6
D C	3	-	-	-	1	31	4	-	-	-	-	-	-	-	-
Va	31	-	36	-	24	28	69	-	41	1	40	19	-	-	2
W Va	4	-	2	-	-	33	3	-	48	2	25	4	-	-	9
N C	5	-	3	-	1	9	62	-	22	-	74	32	-	-	1
S C	6	-	274	-	-	3	42	-	13	-	18	2	-	-	3
Ga	13	-	79	-	14	8	57	-	28	-	132	92	-	-	-
Fla	39	1	314	-	7	105	104	1	47	4	61	67	-	9	29
E S CENTRAL	20	-	63	-	9	7	113	8	64	-	47	63	-	4	3
Ky	6	-	-	-	6	5	25	-	6	-	5	8	-	4	3
Tenn	1	-	57	-	1	1	37	8	53	-	16	25	-	-	-
Ala	9	-	1	-	1	-	37	-	4	-	25	23	-	-	-
Miss	4	-	5	-	1	1	14	-	1	-	1	7	-	-	-
W S CENTRAL	99	-	680	-	38	436	197	6	259	1	238	523	-	70	39
Ark	1	-	276	-	2	-	27	-	61	-	20	14	-	-	1
La	18	-	4	-	-	42	26	-	3	-	15	17	-	-	-
Okla	11	-	37	-	2	1	29	N	N	-	119	165	-	-	1
Tex	69	-	363	-	34	393	115	6	195	1	84	327	-	70	37
MOUNTAIN	36	-	302	-	29	539	101	3	240	1	264	212	-	24	6
Mont	-	-	-	-	8	137	10	-	5	-	19	10	-	2	-
Idaho	1	-	1	-	-	137	4	-	8	-	42	15	-	-	2
Wyo	-	-	-	-	-	5	2	-	-	-	4	-	-	1	-
Colo	12	-	2	-	8	13	17	1	15	-	66	82	-	1	-
N Mex	5	-	33	-	7	6	10	N	N	1	23	12	-	-	2
Ariz	12	-	252	-	6	241	22	2	189	-	65	40	-	2	1
Utah	3	-	12	-	-	-	10	-	15	-	41	53	-	15	-
Nev	3	-	2	-	-	-	26	-	8	-	4	-	-	3	1
PACIFIC	434	1	587	-	64	420	446	11	337	7	463	436	5	247	198
Wash	28	-	139	-	28	142	60	1	17	2	147	80	-	17	14
Oreg	17	-	7	-	4	5	33	N	N	-	12	49	-	4	2
Calif	388	1	414	-	30	249	326	8	291	3	288	260	5	220	133
Alaska	-	-	-	-	-	-	14	-	6	-	3	30	-	-	1
Hawaii	1	-	27	-	2	24	14	2	23	2	16	17	-	6	48
Guam	1	-	4	-	1	11	1	-	4	-	-	-	-	4	3
P R	4	-	36	-	-	67	3	-	33	-	19	12	-	62	27
V I	-	-	-	-	-	10	-	-	16	-	-	-	-	-	-
Pac Trust Terr	-	-	-	-	-	-	1	-	11	-	-	-	-	2	-
Amer Samoa	-	-	2	-	-	-	-	-	5	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations

N Not notifiable U Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 15, 1986 and November 16, 1985 (46th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	23,833	23,797	5	19,374	18,752	141	279	730	4,836
NEW ENGLAND	433	525	-	621	650	1	16	13	8
Maine	19	13	-	34	42	-	-	-	-
N.H.	10	36	-	23	21	-	-	2	1
Vt.	9	7	-	16	8	-	-	-	2
Mass.	227	261	-	345	384	1	13	4	-
R.I.	19	15	-	42	50	-	-	3	3
Conn.	149	193	-	161	145	-	3	4	2
MID ATLANTIC	3,337	3,224	-	3,830	3,361	1	23	35	620
Upstate N.Y.	160	238	-	533	586	-	4	19	78
N.Y. City	1,870	1,960	-	2,011	1,637	-	10	5	-
N.J.	594	620	-	653	456	1	8	2	17
Pa.	713	406	-	633	682	-	1	9	525
E.N. CENTRAL	776	886	1	2,291	2,281	1	22	55	132
Ohio	110	134	1	398	397	-	8	49	16
Ind.	103	74	-	250	291	-	2	-	17
Ill.	363	400	-	987	985	-	3	2	39
Mich.	160	219	-	554	478	1	6	4	24
Wis.	40	59	-	102	130	-	3	-	36
W.N. CENTRAL	190	207	-	569	520	40	9	47	750
Minn.	31	42	-	132	110	-	2	1	114
Iowa	7	18	-	46	53	1	-	1	170
Mo.	101	110	-	279	251	29	6	24	67
N. Dak.	5	2	-	10	10	-	-	1	145
S. Dak.	9	6	-	27	27	3	-	6	170
Nebr.	11	7	-	14	16	1	-	5	31
Kans.	26	22	-	61	53	6	1	9	53
S. ATLANTIC	7,213	6,860	1	3,871	3,845	10	45	330	1,222
Del.	52	36	-	40	42	-	1	1	1
Md.	403	438	-	287	354	2	15	29	551
D.C.	268	297	-	140	138	1	4	-	31
Va.	312	267	-	326	368	2	10	52	184
W. Va.	20	23	-	111	97	-	3	10	50
N.C.	459	612	-	550	496	2	4	127	9
S.C.	619	712	1	499	467	-	-	70	64
Ga.	1,333	1,231	-	645	645	3	-	39	185
Fla.	3,747	3,244	-	1,273	1,238	-	8	2	147
E.S. CENTRAL	1,574	1,828	-	1,710	1,636	13	4	108	319
Ky.	63	63	-	381	402	5	-	22	94
Tenn.	566	568	-	504	485	6	1	44	109
Ala.	459	595	-	540	482	1	1	24	113
Miss.	486	602	-	285	267	1	2	18	3
W.S. CENTRAL	4,672	5,491	2	2,458	2,390	61	25	131	667
Ark.	229	292	-	333	287	43	-	10	152
La.	805	960	-	393	335	1	1	1	22
Okla.	131	170	2	223	229	12	2	103	57
Tex.	3,507	4,069	-	1,509	1,539	5	22	17	436
MOUNTAIN	537	666	1	461	500	11	16	10	613
Mont.	7	6	-	31	46	1	1	4	197
Idaho	14	5	-	21	23	-	-	2	9
Wyo.	4	9	-	-	5	1	-	1	258
Colo.	122	191	-	42	73	3	1	3	29
N. Mex.	62	112	1	87	82	1	1	-	6
Ariz.	219	281	-	214	224	-	9	-	96
Utah	18	8	-	31	17	4	3	-	7
Nev.	91	54	-	35	30	1	1	-	11
PACIFIC	5,101	4,110	-	3,563	3,569	3	119	1	505
Wash.	120	97	-	183	200	1	3	-	5
Oreg.	103	92	-	112	119	-	-	-	1
Calif.	4,837	3,855	-	3,062	2,992	1	110	1	491
Alaska	10	4	-	46	89	1	1	-	8
Hawaii	31	62	-	160	169	-	5	-	-
Guam	1	2	-	34	38	-	1	-	-
P.R.	790	777	-	305	320	-	5	-	43
V.I.	1	3	-	1	1	-	-	-	-
Pac. Trust Terr.	238	128	-	75	75	-	47	-	-
Amer. Samoa	-	-	-	5	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending November 15, 1986 (46th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	698	486	137	43	19	13	46
Boston, Mass	175	108	38	15	9	5	8
Bridgeport, Conn	40	21	12	5	1	1	-
Cambridge, Mass	30	27	3	-	-	-	4
Fall River, Mass	33	28	5	-	-	-	-
Hartford, Conn	64	46	10	6	1	1	5
Lowell, Mass	27	21	5	-	-	1	1
Lynn, Mass	16	12	3	1	-	-	1
New Bedford, Mass	24	18	5	1	-	-	-
New Haven, Conn	62	42	10	8	2	-	4
Providence, R.I.	67	50	13	2	-	2	11
Somerville, Mass	5	5	-	-	-	-	-
Springfield, Mass	63	45	15	1	1	1	5
Waterbury, Conn	32	25	4	1	2	-	6
Worcester, Mass	60	38	14	3	3	2	1
MID ATLANTIC	2,800	1,830	580	270	67	52	118
Albany, N.Y.	56	40	12	1	2	1	3
Allentown, Pa	28	19	8	1	-	-	2
Buffalo, N.Y.	137	89	34	6	5	3	11
Camden, N.J.	40	26	12	2		-	1
Elizabeth, N.J.	19	15	3	-	-	-	-
Erie, Pa †	45	39	5	1	-	-	5
Jersey City, N.J.	38	27	3	7	-	1	-
N.Y. City, N.Y.	1,515	960	311	179	40	25	57
Newark, N.J.	77	40	14	16	3	2	3
Paterson, N.J.	32	20	6	3	2	1	2
Philadelphia, Pa	311	192	70	34	7	8	16
Pittsburgh, Pa †	71	45	18	4	2	2	1
Reading, Pa	36	33	3	-	-	-	3
Rochester, N.Y.	125	91	24	6	-	4	9
Schenectady, N.Y.	27	22	5	-	-	-	-
Scranton, Pa †	46	33	11	1	-	1	-
Syracuse, N.Y.	119	86	23	6	3	1	3
Trenton, N.J.	28	16	9	-	1	2	-
Utica, N.Y.	16	13	3	-	-	-	-
Yonkers, N.Y.	34	24	6	1	2	1	2
E.N. CENTRAL	2,348	1,532	505	172	62	77	96
Akron, Ohio	65	47	10	1	4	3	-
Canton, Ohio	40	29	8	2	1	-	4
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	114	68	30	8	4	4	8
Cleveland, Ohio	150	79	42	19	5	5	3
Columbus, Ohio	177	101	46	15	7	8	4
Dayton, Ohio	112	71	32	4	2	3	-
Detroit, Mich	293	177	64	30	12	10	6
Evansville, Ind	54	35	13	3	1	2	4
Fort Wayne, Ind	56	39	10	1	2	4	3
Gary, Ind	13	9	2	2	-	-	-
Grand Rapids, Mich	52	41	6	2	2	1	4
Indianapolis, Ind	178	113	39	14	3	9	8
Madison, Wis	35	21	7	5	1	1	3
Milwaukee, Wis	118	93	19	4	1	1	7
Peoria, Ill	62	47	11	1	1	2	11
Rockford, Ill	48	35	5	5	3	-	4
South Bend, Ind	62	45	11	4	1	1	4
Toledo, Ohio	96	73	17	3	2	1	5
Youngstown, Ohio	59	47	8	4	-	-	2
W.N. CENTRAL	821	561	166	48	28	18	42
Des Moines, Iowa	64	43	18	3	-	-	2
Duluth, Minn	28	20	7	-	1	-	1
Kansas City, Kans	29	16	8	3	1	1	-
Kansas City, Mo	122	80	28	9	3	2	7
Lincoln, Nebr	29	21	4	4	-	-	6
Minneapolis, Minn	218	152	34	11	16	5	7
Omaha, Nebr	72	55	12	3	1	1	7
St. Louis, Mo	136	91	30	5	4	6	7
St. Paul, Minn	65	49	12	3	1	-	-
Wichita, Kans	58	34	13	7	1	3	5
S. ATLANTIC	1,120	713	228	88	28	34	54
Atlanta, Ga	113	68	35	3	4	3	3
Baltimore, Md	201	126	49	13	6	7	4
Charlotte, N.C.	66	41	17	6	-	2	5
Jacksonville, Fla	133	87	9	-	5	3	15
Miami, Fla	86	47	22	15	1	1	2
Norfolk, Va	46	26	11	7	-	2	2
Richmond, Va	77	51	14	8	1	3	7
Savannah, Ga	57	30	16	6	3	2	4
St. Petersburg, Fla	76	64	10	1	1	-	1
Tampa, Fla	70	50	13	6	-	1	7
Washington, D.C.	164	98	29	21	6	10	3
Wilmington, Del	31	25	3	2	1	-	1
E.S. CENTRAL	618	394	139	49	13	23	27
Birmingham, Ala	106	65	27	7	1	6	1
Chattanooga, Tenn	65	46	12	5	1	1	7
Knoxville, Tenn	61	46	12	1	-	2	5
Louisville, Ky	84	57	16	5	2	4	5
Memphis, Tenn	118	70	30	13	4	1	5
Mobile, Ala	33	18	10	3	-	2	1
Montgomery, Ala	48	29	10	5	-	4	-
Nashville, Tenn	103	63	22	10	5	3	3
W.S. CENTRAL	1,233	712	275	142	55	47	48
Austin, Tex	57	39	10	6	1	1	3
Baton Rouge, La	26	13	8	1	1	3	-
Corpus Christi, Tex	47	33	8	2	1	3	1
Dallas, Tex	176	91	39	29	11	6	6
El Paso, Tex	61	35	14	1	5	4	2
Fort Worth, Tex	85	51	17	11	3	3	4
Houston, Tex	327	171	78	50	17	11	6
Little Rock, Ark	65	40	13	7	1	4	8
New Orleans, La	89	41	26	14	6	2	1
San Antonio, Tex	144	88	36	10	6	4	7
Shreveport, La	62	46	11	3	-	2	2
Tulsa, Okla	94	64	15	8	3	4	8
MOUNTAIN	618	411	126	45	19	15	49
Albuquerque, N.Mex	76	49	15	9	2	1	3
Colo. Springs, Colo	44	27	9	5	-	3	6
Denver, Colo	82	64	12	4	2	-	2
Las Vegas, Nev	106	56	30	11	5	2	8
Ogden, Utah	16	11	2	-	-	3	-
Phoenix, Ariz	130	86	27	10	4	3	23
Pueblo, Colo	20	14	5	1	-	-	-
Salt Lake City, Utah	43	32	8	-	1	2	2
Tucson, Ariz	101	72	18	5	5	1	5
PACIFIC	1,622	1,077	296	140	63	43	93
Berkeley, Calif	9	5	-	2	2	-	1
Fresno, Calif	74	43	18	5	3	5	6
Glendale, Calif	22	14	6	2	-	-	1
Honolulu, Hawaii	76	49	14	6	5	2	9
Long Beach, Calif	74	50	10	7	4	3	9
Los Angeles, Calif	411	270	65	44	23	6	10
Oakland, Calif §	70	48	12	5	3	2	3
Pasadena, Calif	37	25	7	3	1	1	2
Portland, Oreg	102	72	19	9	2	-	5
Sacramento, Calif	135	85	32	4	8	6	14
San Diego, Calif	93	62	17	9	4	1	8
San Francisco, Calif	134	77	30	19	2	6	3
San Jose, Calif	157	110	29	10	2	6	11
Seattle, Wash	117	80	20	11	4	2	5
Spokane, Wash	65	51	10	2	-	2	4
Tacoma, Wash	46	36	7	2	-	1	2
TOTAL	11,878††	7,716	2,452	997	354	322	573

---

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§ Data not available. Figures are estimates based on average of past 4 weeks.

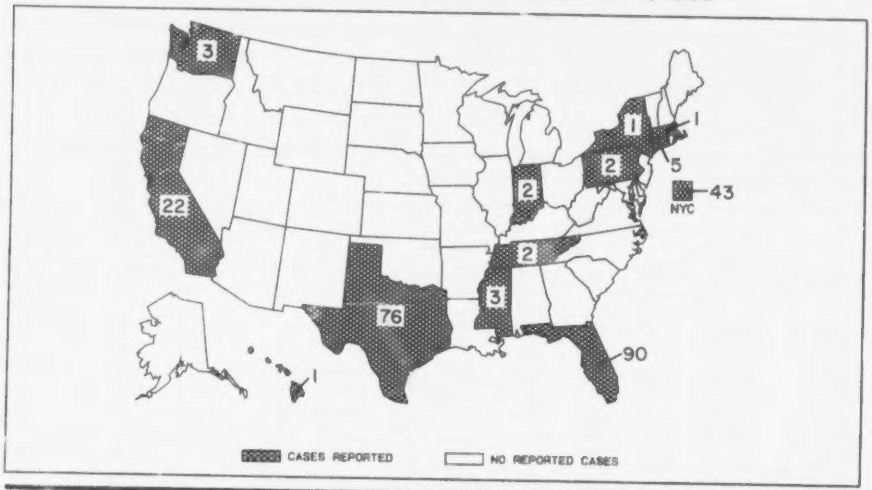
Erratum: Vol. 33, No. 54, *MMWR Annual Summary, 1984*

p. 93 The following table replaces the table on homicide that appears in the *MMWR Annual Summary, 1984*. In the original publication, rates for another category were inadvertently attributed to homicide. The following table gives the correct homicide data for 1982:

HOMICIDE — Number of homicides and homicide rates (per 100,000 population), by race, sex, and age group, United States, 1982

	White						Black and other					
	Total		Male		Female		Total		Male		Female	
Age group	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
< 10	452	1.7	245	1.8	207	1.6	334	5.4	189	6.0	145	4.7
10-14	150	1.0	68	0.9	82	1.1	87	2.7	58	3.6	29	1.8
15-19	1,044	6.4	766	9.2	278	3.5	893	26.0	722	41.7	177	10.0
20-24	2,013	11.0	1,537	16.7	476	5.3	1,745	50.1	1,442	84.6	303	17.1
25-29	1,932	11.0	1,508	17.1	424	4.9	1,852	58.6	1,538	102.7	314	18.9
30-34	1,506	9.5	1,216	15.3	290	3.6	1,523	55.3	1,276	99.5	247	16.8
35-39	1,208	8.9	937	13.9	271	4.0	941	45.4	781	81.9	160	14.3
40-44	962	8.9	742	13.9	220	4.0	618	36.5	500	64.3	118	12.9
45-49	678	7.1	540	11.5	138	2.8	524	35.8	433	65.1	91	11.4
50-54	653	6.5	499	10.3	154	3.0	430	31.9	364	60.6	66	8.8
55-59	498	4.9	377	7.7	121	2.2	301	23.6	253	44.6	48	6.8
60-64	392	4.1	282	6.4	110	2.2	237	21.9	191	39.9	46	7.7
65-69	286	3.5	180	5.0	106	2.4	173	19.5	138	36.4	35	6.9
70-74	223	3.4	135	5.0	88	2.3	112	15.8	80	26.8	32	7.8
75-79	169	3.7	94	5.3	75	2.6	72	15.0	47	24.5	25	8.7
80-84	112	3.9	48	4.9	64	3.4	33	12.3	20	19.8	13	7.7
85+	115	5.1	54	8.2	61	3.9	26	13.1	12	18.2	14	10.7
Age not stated	46	—	32	—	14	—	18	—	11	—	7	—
Total	**12,439**	**6.3**	**9,260**	**9.6**	**3,179**	**3.1**	**9,919**	**29.4**	**8,055**	**50.2**	**1,864**	**10.6**

FIGURE I. Reported measles cases — United States, weeks 42-45, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

Director, Centers for Disease Control
James O. Mason, M.D., Dr.P.H.
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Editor
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MORBIDITY AND MORTALITY WEEKLY REPORT

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Epidemiologic Notes and Reports

Influenza Activity in Civilian and Military Populations and Key Points for Use of Influenza Vaccines

Investigation of influenza-like illness in military personnel has confirmed infections with the A/Taiwan/86(H1N1)-like variant. These outbreaks have provided additional evidence supporting the use of the 1986-1987 supplemental monovalent influenza vaccine in recommended high-risk groups of young adults and also in young adults providing health care or other essential services.

Asia. During April and May 1986, influenza-like activity was reported among military personnel stationed at three U.S. Air Force bases in the Philippines and Japan. Paired sera were collected from eight ill individuals, including five persons who had been vaccinated with trivalent influenza vaccine between October 1985 and January 1986. The geometric mean titer (GMT) determined from hemagglutination inhibition (HI) test results for the acute-phase sera from the vaccinated personnel was 140 for the A/Chile/83(H1N1) antigen and 35 for A/Taiwan/86. Convalescent-phase sera showed a four-fold increase in the GMT (560) for A/Chile/83 and a ten-fold rise in the GMT (370) for A/Taiwan/86. These findings provide circumstantial evidence that illnesses were caused by infections with A/Taiwan/86-like viruses.

Florida. Between October 10 and November 7, 1986, at least 52 active duty personnel at the Key West Naval Base experienced a respiratory illness characterized by feverishness, cough, and sore throat or myalgias. Thirty-four ill persons were members of one 111-person squadron that was interviewed after an outbreak of influenza-like illness, and the others were identified by reviewing the Naval Medical Clinic records. A/Taiwan/86-like virus was isolated from three of four nasopharyngeal cultures collected on November 5 from ill persons. Patients in the squadron ranged from 19 to 39 years of age; 88% of them were <35 years of age. Onset of illnesses occurred from October 19 to November 2. Supplemental monovalent A/Taiwan/86(H1N1) vaccine had not yet been used. The attack rate among squadron members who had been vaccinated with the 1986-1987 trivalent influenza vaccine—which contains A/Chile/83 antigen as its type A(H1N1) component—was 36.5% (23/63); among the unvaccinated, the attack rate was 33.3%(11/33). Other differences between the vaccinated and unvaccinated groups that might affect illness rates were not identified.

Control measures implemented on the naval base included recommending that all active

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Influenza — Continued

duty service members <35 years of age be vaccinated with the supplemental monovalent influenza A(H1N1) vaccine. All military dependents who were <35 years of age and also in defined high-risk groups and all health care workers <35 years of age were also vaccinated and received a 14-day course of amantadine chemoprophylaxis beginning at the time of vaccination.

Other Reports — United States. Influenza type A(H1N1) virus also has been isolated from patients during outbreaks of influenza-like illness in two other states. In Massachusetts, virus was isolated in mid-November from one student in each of two Boston colleges. Large increases in the numbers of students seen with influenza-like illness were noted at the time the specimens were collected. In New York City, virus was isolated from two young-adult inmates who were ill in mid-November during an ongoing outbreak of influenza-like illness in an adolescent detention center. During the outbreaks in Massachusetts, New York, and Key West, Florida, there was no apparent spread to surrounding communities where influenza-like illness continued to occur at sporadic levels.

Influenza type A(H1N1) virus was also isolated in association with sporadically occurring cases in Oregon, New York, and Texas. In Oregon, virus was isolated in early November from a teenage patient living near Portland. In New York City, from late October to mid-November, type A(H1N1) virus was isolated from five children and two young adults. In Houston, Texas, active surveillance has identified a total of 15 type A(H1N1) virus isolates collected from residents (nearly all children) during late October to mid-November.

Influenza type B virus has been identified from ill persons in California and Texas. In California, virus was isolated from a 77-year-old resident of San Joaquin County who was ill in mid-October. In Texas, a man returning by air from South America in early November had influenza soon after arriving in Houston. His son developed influenza two days later; type B virus was isolated from both father and son.

Reported by HM1 RD Huff, USN, Dept of Environmental and Occupational Health, Naval Medical Clinic, Key West, Florida; CDR RL Buck, MC, USN, LCDR DH Trump, MC, USN, Epidemiology Dept, Navy Environmental and Preventive Medicine Unit, No. 2, Norfolk, Virginia; Epidemiology Div, Disease Surveillance Br, Laboratory Br-Virology Section, USAF School of Aerospace Medicine, Brooks Air Force Base, Texas; EE Buff, MS, E Wyner, MT, V Mock, M Wilder, MD, MS, Acting State Epidemiologist, Florida State Dept of Health and Rehabilitative Svcs; B Daidone, K Bromberg, MD, Kings County Hospital, C Braslow, MD, I Spigland, MD, Montefiore Hospital, S Schultz, MD, New York City Dept of Health, D Morse, MD, State Epidemiologist, New York State Dept of Health; V Berardi, L Mofensen, MD, P Etkind, G Grady, MD, State Epidemiologist, Massachusetts Dept of Public Health; Influenza Research Center, Baylor College of Medicine, Houston, C Alexander, MD, State Epidemiologist, Texas Dept of Health; R Schieble, PhD, R Murray, PhD, J Chin, MD, State Epidemiologist, California Dept of Health Svcs; B Matsuda, MR Skeels, PhD, DW Fleming, MD, LR Foster, MD, MPH, State Epidemiologist, Oregon Dept of Human Resources; Div of Field Services, Epidemiology Program Office, WHO Collaborating Center for Influenza, Influenza Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: Influenza A/Taiwan/86(H1N1)-like viruses were first isolated in Asia in early 1986. These viruses circulated in the western pacific region until about mid-year and caused illness primarily in children and young adults living in the region (*1,2*). Because there is a high degree of antigenic variation between the A/Taiwan/86-like viruses and the A/Chile/83 (H1N1) component of the trivalent 1986-1987 influenza vaccine, a supplemental monovalent vaccine containing A/Taiwan/86(H1N1) virus antigen was recommended, particularly for high-risk children and young adults.

The Key West report is the first outbreak of influenza-like illness identified in the United States during the 1986-1987 influenza season, and isolation of influenza A/Taiwan/86-like virus from three of four patients identified this as the etiologic agent. In late September and early October, the U.S. Navy implemented its 1986-1987 trivalent influenza immunization program; the supplemental monovalent influenza immunization program had not yet begun. The finding of similar attack rates among persons receiving the trivalent vaccine and non-

Influenza — Continued

vaccinated persons is consistent with previous serologic data (*3*). It is also consistent with reported data for Air Force personnel that high post-vaccination antibody titers against A/Chile/83 in young adults do not guarantee protection against infection by A/Taiwan/86-like virus.

It is important to note that the influenza vaccination policy of the Armed Forces of the United States differs from the Immunization Practices Advisory Committee (ACIP) recommendations. In addition to following the ACIP recommendations for civilian dependents and health care personnel, the Armed Forces recommend routine vaccination for all military personnel because of the need to prevent influenza outbreaks that could impair a unit's ability to carry out its mission. The decision to give the monovalent A/Taiwan/86 vaccine to all service members <35 years of age stationed at the Key West facility during the outbreak is in keeping with this policy.

The ACIP recommendations for the civilian population are intended to protect individuals who, because of existing medical conditions, are at high risk for severe influenza and serious complications. The presence of influenza type A(H1N1) outbreaks and type B virus infections in the United States emphasizes the need for all high-risk individuals to receive appropriate vaccination, including trivalent vaccine. Although this information has been published previously in the MMWR (*2,4,5*), it is important to re-emphasize the following key points:

- High-risk persons of all ages should receive the standard trivalent vaccine according to previously published ACIP recommendations.
- The Public Health Service (PHS) urges health care personnel who treat high-risk children or high-risk adults <35 years of age to provide both trivalent and supplemental A(H1N1) influenza vaccines to their patients.
- Vaccination with the trivalent vaccine should not be delayed if the supplemental vaccine is not available at the time the trivalent vaccine would normally be given.
- Supplemental vaccination is of potential benefit to many other groups of young persons to reduce morbidity if A(H1N1) outbreaks occur. The potential for introducing influenza to high-risk patients could be reduced by vaccinating young adult parents and siblings of high-risk children; young health care personnel who provide care for young, high-risk patients; and young employees who perform essential services in the public or private sector.
- There is no special emphasis by the PHS to provide the supplemental vaccine to adults ≥ 35 years of age. However, it may be used in this group either as an added precaution, if the physician and patient so desire, or on the basis of institutional or other local policy decisions. (To date, the elderly have not been involved in the first reported influenza A(H1N1) infections in the United States.)
- Aspirin use during influenza, influenza-like illnesses, and chickenpox has been associated with Reye syndrome (*6*), a rare but serious disease. Therefore, the PHS warns that children and teenagers ≤ 18 years of age should not use aspirin or aspirin-containing medications for the treatment of these illnesses (*7*).

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Dengue in the Americas, 1985

The Americas experienced increased dengue activity in 1985 with 68,998 cases reported as compared to 43,435 cases in 1984 and 25,216 cases in 1983. In 1985, as in 1983 and 1984, three serotypes (DEN-1, DEN-2, and DEN-4) circulated in the region. Twenty countries reported dengue activity, and the serotype was confirmed by virus isolation and/or serology in 14. Although all three serotypes were widely distributed in 1985, DEN-1 continued to be the predominant virus serotype in the region. Three countries (Mexico, Puerto Rico, and Venezuela) had three serotypes circulating simultaneously (DEN-1, DEN-2, and DEN-4), while five other countries had at least two serotypes (Table 1).

Nicaragua and Aruba experienced major dengue epidemics in 1985. Small numbers of cases with severe and fatal hemorrhagic disease were reported in both countries. The Nicaraguan Ministry of Health reported 17,483 cases of dengue, most of which occurred late in the year. DEN-1 was the predominant virus isolated (18 strains), but DEN-2 was also isolated (8 strains). In addition, seven cases of fatal hemorrhagic disease in adults were reported, and one was confirmed as DEN-1 by virus isolation. Aruba, Netherland Antilles, reported 24,000 cases of dengue during a DEN-1 epidemic that began in late 1984 and continued through March 1985. There was one virologically confirmed case of fatal hemorrhagic disease (DEN-1) in an adult female. A sibling of this patient died of a similar hemorrhagic disease 3 weeks earlier; however, the disease was not confirmed as dengue.

Dengue transmission continued in Mexico, but to a lesser extent than in the previous 2 years. Honduras and El Salvador also reported dengue activity. In South America, both Colombia and Venezuela had confirmed dengue transmission. While three serotypes were confirmed in Venezuela, no outbreaks were reported. Beginning in October, the southern port city of Tumaco, Colombia, experienced a mixed outbreak of DEN-1 and DEN-2. A total of 7,797

TABLE 1. Reported cases of dengue in the Americas by country, 1985

Country	Number of cases	Virus serotypes
Aruba	24,000	DEN-1
Bonaire	6	DEN-1
Colombia	7,797	DEN-1, DEN-2
Dominica	1	DEN-2
Dominican Republic	92	DEN-2, DEN-4
El Salvador	425	*
French Guiana	Sporadic	*
Guadeloupe	216	*
Haiti	20	DEN-2, †
Honduras	307	*
Martinique	Sporadic	*
Mexico	16,182	DEN-1, DEN-2, DEN-4
Nicaragua	17,483	DEN-1, DEN-2
Puerto Rico	2,371	DEN-1, DEN-2, DEN-4
St. Christopher-Nevis	2	*
St. Martin	2	DEN-2
Trinidad and Tobago	7	DEN-1, DEN-2
United States	48	DEN-1, DEN-4
U.S. Virgin Islands	39	DEN-1
Venezuela	Sporadic	DEN-1, DEN-2, DEN-4
Total	**68,998**	

*No information on virus serotypes for these countries.

†Serologically determined.

Dengue — Continued

cases were reported in the whole country in 1985. DEN-2 was the predominant serotype isolated in Colombia in 1985.

With the exception of a small outbreak in Puerto Rico, dengue activity in the Antilles islands remained sporadic in 1985. In Puerto Rico, 133 cases were confirmed from late August through December. Two cases of hemorrhagic disease in children were confirmed by virus isolation—one DEN-1 with a primary-type serologic response and one DEN-2 with a secondary-type response. Forty-eight cases of suspected dengue were reported in the United States. However, only eight cases were confirmed, and all of these had been imported.

Clinically, most of the illness reported in the Americas in 1985 was of the classical type. However, there appears to be increased sporadic incidence of hemorrhagic disease associated with dengue infection in most countries of the region.

Reported by Pan American Health Organization, Washington, DC; Caribbean Epidemiology Center, Port-of-Spain, Trinidad; Pasteur Institute, Cayenne, French Guiana; Instituto de Salubridad y Enfermedades Tropicales, Mexico City, Mexico; Instituto Nacional de Salud, Bogota, Colombia; Instituto Nacional de Higiene "Rafael Rangel," Caracas, Venezuela; Institute of Tropical Medicine "Pedro Kouri," Havana, Cuba; Puerto Rico Health Dept, San Juan, Puerto Rico; Dengue Br, Div of Vector-Borne Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: For the past several years, dengue transmission in the Americas has been characterized by more frequent epidemic activity. More countries have been reporting severe hemorrhagic disease, and the total number of cases of severe hemorrhagic disease has increased. The number of circulating dengue virus serotypes has also increased. In Asia, dengue fever changed from a benign flu-like illness to become one of the leading causes of morbidity and mortality among southeast Asian children. The current epidemiologic pattern of dengue in the Americas is similar to the pattern that occurred in southeast Asia in the 1950s.

It is often believed that the highest risk for dengue hemorrhagic fever (DHF) is associated with DEN-2 infection. This serotype, while widespread in the region, has only occurred sporadically in recent years. Although secondary infection with DEN-2 is a definite risk factor for DHF, most severe and fatal cases of DHF in 1984 and 1985 were caused by DEN-1 or DEN-4. Furthermore, DEN-3 has been shown to cause severe and fatal DHF in some countries of southeast Asia. Thus, health authorities should assume that all four serotypes are capable of causing epidemics of DHF, and they should act to establish proper surveillance for the disease.

Aedes albopictus (*1,2*), an efficient Asian mosquito host for dengue viruses, has recently been discovered in the United States and Brazil. This aggressive, man-biting mosquito has both rural and urban habitats. It also has been shown to transmit dengue viruses both transovarially (from female mosquitoes to their offspring through infection of the eggs) and from man to man. If *Ae. albopictus* becomes involved in dengue transmission in the Americas, then the situation in this region would become even more similar to the situation in southeast Asia. The presence of *Ae. albopictus* in the Americas adds further stimulus for surveillance of dengue and DHF in the region.

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Turtle-Associated Salmonellosis — Ohio

On June 6, 1986, two cases of turtle-associated salmonellosis were reported in Columbus, Ohio. A 2-year-old boy became ill with fever, abdominal pain, and bloody diarrhea 4 days after his mother had purchased a pet turtle from a local pet store. His 4-year-old brother developed similar symptoms the next day.

Salmonellosis – Continued

Stool cultures from both boys yielded *Salmonella typhimurium*. Following investigation by the Ohio Department of Health, *S. typhimurium* was isolated from the turtle and from a water sample taken from the turtle bowl in the children's home. All four isolates of *S. typhimurium* had the same plasmid profile. The turtle was a red-eared slider, *Trachemys scripta elegans* (formerly *Pseudemys scripta elegans* [*1*]), with a carapace diameter of 2 inches.

When investigators from the Food and Drug Administration and the Ohio Department of Health visited the pet store, no more turtles were available. The store owner had purchased the turtles from a local distributor who sells reptiles primarily to local universities and other institutions for scientific purposes. The invoice for the sale of the turtles to the pet store stated that the turtles were to be used for scientific purposes only.

Local health departments in Ohio were notified that turtles might be for sale illegally in their jurisdictions. No other cases of turtle-associated salmonellosis have been reported in Ohio.

Reported by LK Giljahn, MPH, Infectious Disease Epidemiology Unit, TJ Halpin, MD, MPH, State Epidemiologist, Ohio Dept of Health; Food and Drug Administration; Enteric Diseases Br, Div of Bacterial Diseases, Center for Infectious Diseases, CDC.

(Continued on page 739)

TABLE I. Summary – cases specified notifiable diseases, United States

Disease	47th Week Ending			Cumulative, 47th Week Ending		
	Nov. 22, 1986	Nov. 23, 1985	Median 1981-1985	Nov. 22, 1986	Nov. 23, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	314	190	N	11,978	7,171	N
Aseptic meningitis	267	152	157	9,564	9,458	8,822
Encephalitis: Primary (arthropod-borne & unspec.)	21	32	32	1,103	1,211	1,412
Post-infectious	1	1	1	92	111	82
Gonorrhea: Civilian	18,714	18,530	18,090	803,818	804,825	815,862
Military	376	428	382	15,328	19,130	22,006
Hepatitis: Type A	400	407	407	20,312	20,581	20,581
Type B	469	556	461	23,040	23,613	21,574
Non A, Non B	61	65	N	3,143	3,706	N
Unspecified	94	99	123	4,015	5,186	6,561
Legionellosis	23	24	N	721	693	N
Leprosy	5	4	3	224	338	217
Malaria	16	19	13	1,012	939	939
Measles: Total*	31	6	27	5,879	2,670	2,501
Indigenous	31	3	N	5,588	2,238	N
Imported	-	3	N	291	432	N
Meningococcal infections: Total	38	48	51	2,183	2,150	2,481
Civilian	38	48	51	2,181	2,143	2,446
Military	-	-	-	2	7	12
Mumps	147	52	58	4,711	2,657	2,987
Pertussis	31	57	21	3,910	3,210	2,114
Rubella (German measles)	12	3	13	474	597	906
Syphilis (Primary & Secondary): Civilian	542	657	557	24,407	24,354	27,997
Military	1	2	6	144	147	346
Toxic Shock syndrome	5	5	N	311	338	N
Tuberculosis	453	533	428	19,844	19,285	21,080
Tularemia	10	1	1	150	187	251
Typhoid fever	5	10	6	284	350	381
Typhus fever, tick-borne (RMSF)	8	3	4	730	671	847
Rabies, animal	57	114	83	4,911	4,914	5,515

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1986		Cum. 1986
Anthrax	-	Leptospirosis (Tex. 1)	36
Botulism: Foodborne (Calif. 1)	18	Plague	7
Infant (Utah 1, Wash. 2, Calif. 1)	61	Poliomyelitis, Paralytic	1
Other	1	Psittacosis (Fla. 1)	85
Brucellosis (Ark. 1, Tex. 1)	77	Rabies, human	-
Cholera	3	Tetanus (Fla. 1)	58
Congenital rubella syndrome	10	Trichinosis	31
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	45
Diphtheria	-		

* There were no cases of internationally imported measles reported for this week.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending November 22, 1986 and November 23, 1985 (47th Week)

Reporting Area	AIDS	Aseptic Menin-gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel-losis	Leprosy
			Primary	Post-in-fectious			A	B	NA,NB	Unspeci-fied		
	Cum. 1986	1986	Cum. 1986	Cum. 1986	Cum. 1986	Cum. 1985	1986	1986	1986	1986	1986	Cum. 1986
UNITED STATES	11,976	267	1,103	92	803,818	804,825	400	469	51	94	23	224
NEW ENGLAND	473	14	27	3	21,611	20,531	13	43	2	8	1	8
Maine	20	1	2	-	789	1,049	-	4	1	-	-	-
N.H.	13	-	2	-	520	520	-	-	-	-	-	-
Vt.	5	1	4	2	243	304	-	1	-	-	-	-
Mass.	254	7	5	-	7,828	8,517	7	31	-	8	1	8
R.I.	29	2	-	-	1,690	1,660	3	1	1	-	-	-
Conn.	152	3	14	1	10,541	8,481	3	6	-	-	-	-
MID. ATLANTIC	4,414	26	87	9	140,047	115,974	30	31	3	29	3	17
Upstate N.Y.	485	17	35	5	16,817	16,465	22	12	2	8	-	1
N.Y. City	2,997	1	19	1	81,398	56,466	1	3	1	21	3	15
N.J.	664	8	10	-	17,745	17,300	7	16	-	-	-	-
Pa.	268	-	33	3	24,089	25,743	-	-	-	-	-	1
E.N. CENTRAL	719	58	337	11	104,401	105,890	14	38	5	7	5	4
Ohio	154	21	130	3	27,024	29,102	3	9	-	2	1	-
Ind.	59	7	79	3	11,349	11,425	1	10	3	2	2	-
Ill.	342	-	80	4	25,047	24,758	4	6	1	-	-	4
Mich.	127	30	52	1	33,522	30,405	6	13	1	3	2	1
Wis.	37	-	26	-	7,207	10,200	-	-	-	-	-	-
W.N. CENTRAL	219	13	79	9	34,598	37,754	5	11	-	1	-	4
Minn.	83	1	33	-	4,959	5,557	1	5	-	-	-	2
Iowa	18	1	25	-	3,562	4,021	-	4	-	-	-	-
Mo.	72	7	2	-	17,056	18,238	-	-	-	-	-	-
N. Dak.	2	-	4	-	288	256	-	-	-	-	-	-
S. Dak.	2	1	11	-	711	725	2	1	-	-	-	-
Nebr.	11	-	1	1	2,602	3,257	1	-	-	1	-	-
Kans.	31	3	3	8	5,422	5,700	1	1	-	-	-	2
S. ATLANTIC	1,708	46	141	37	208,456	209,947	49	131	10	9	12	3
Del.	22	1	6	-	3,425	4,081	6	2	-	-	-	-
Md.	159	9	31	1	24,710	26,648	2	29	-	1	-	-
D.C.	222	1	-	1	15,573	14,483	1	5	-	-	-	-
Va.	137	11	38	1	16,965	17,606	6	20	2	1	5	1
W. Va.	7	-	45	-	2,035	2,388	1	1	-	-	1	-
N.C.	71	4	17	2	32,239	33,341	1	14	-	-	3	-
S.C.	46	-	-	-	17,779	19,669	3	9	5	-	-	-
Ga.	266	9	-	1	34,487	40,828	3	21	-	-	-	-
Fla.	778	11	4	31	61,243	60,903	26	30	3	7	3	2
E.S. CENTRAL	147	17	61	4	64,417	69,845	3	26	4	1	-	1
Ky.	28	2	30	1	7,080	8,023	3	7	-	-	-	-
Tenn.	70	14	8	1	24,377	26,710	-	11	2	1	-	-
Ala.	25	-	22	2	18,895	21,056	-	6	2	-	-	1
Miss.	24	1	1	-	14,065	14,056	-	2	-	-	-	-
W.S. CENTRAL	1,067	47	179	6	92,902	101,838	66	58	10	17	1	23
Ark.	29	-	-	2	8,900	9,565	3	5	-	-	-	1
La.	142	-	15	-	15,961	19,228	4	-	-	2	-	1
Okla.	41	5	21	-	10,723	11,332	2	8	3	-	-	-
Tex.	855	42	143	4	57,318	61,713	57	45	7	15	1	21
MOUNTAIN	313	8	38	1	23,783	25,501	46	22	2	1	1	13
Mont.	4	-	1	1	623	724	1	-	1	-	-	-
Idaho	3	-	-	-	800	889	3	1	-	-	-	-
Wyo.	4	-	2	-	493	588	-	1	-	-	-	-
Colo.	146	3	5	-	6,090	7,374	-	2	1	-	-	3
N. Mex.	23	-	3	-	2,501	2,845	9	2	-	-	-	-
Ariz.	80	4	18	-	7,674	7,731	29	14	-	1	-	7
Utah	18	-	7	-	1,022	1,234	2	1	-	-	-	1
Nev.	35	1	2	-	4,580	4,116	2	1	-	-	1	2
PACIFIC	2,916	38	144	12	113,603	117,545	174	109	15	21	-	151
Wash.	157	7	13	-	8,367	9,127	11	12	5	2	-	16
Oreg.	55	-	-	-	4,957	5,884	38	1	-	-	-	-
Calif.	2,642	29	123	12	98,923	98,176	120	93	8	19	-	105
Alaska	12	-	7	-	2,431	2,810	5	1	2	-	-	-
Hawaii	50	2	1	-	1,177	1,548	-	2	-	-	-	29
Guam	-	-	-	-	190	180	-	-	-	-	-	1
P.R.	139	-	5	1	2,198	2,871	-	3	-	3	-	7
V.I.	5	-	-	-	250	373	-	-	-	-	-	-
Pac. Trust Terr.	-	-	-	-	428	766	-	-	-	3	-	56
Amer. Samoa	-	-	-	-	51	-	-	-	-	-	-	3

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 22, 1986 and November 23, 1985 (47th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	1,012	31	5,588	-	291	2,670	2,183	147	4,711	31	3,910	3,210	12	474	597
NEW ENGLAND	61	-	88	-	16	126	154	3	65	-	157	203	-	9	12
Maine	2	-	12	-	1	1	27	-	-	-	2	9	-	-	-
N.H.	3	-	43	-	-	-	6	-	14	-	81	112	-	1	2
Vt.	2	-	-	-	-	-	18	-	4	-	3	3	-	1	-
Mass.	32	-	24	-	13	118	42	2	14	-	41	46	-	4	6
R.I.	7	-	2	-	-	-	20	1	11	-	6	22	-	2	-
Conn.	15	-	7	-	2	7	41	-	22	-	24	11	-	1	4
MID ATLANTIC	141	-	1,729	-	34	232	344	4	198	1	197	239	1	37	228
Upstate N.Y.	48	-	77	-	24	85	122	2	65	-	124	113	-	27	18
N.Y. City	31	-	723	-	4	79	70	-	29	-	10	29	-	5	185
N.J.	37	-	905	-	4	28	30	2	50	-	18	11	1	5	11
Pa.	25	-	24	-	2	40	122	-	54	1	45	86	-	-	14
E.N. CENTRAL	61	17	1,079	-	28	562	316	36	3,084	-	367	785	-	49	38
Ohio	19	-	-	-	10	60	128	-	128	-	159	113	-	1	-
Ind.	2	-	27	-	11	57	34	-	40	-	35	201	-	-	1
Ill.	16	1	699	-	4	326	74	28	2,328	-	36	74	-	38	20
Mich.	20	16	75	-	-	60	68	8	338	-	35	47	-	8	16
Wis.	4	-	278	-	3	59	11	-	250	-	99	350	-	2	1
W.N. CENTRAL	30	1	323	-	17	12	101	13	149	5	1,410	230	-	14	19
Minn.	8	-	45	-	4	6	21	2	14	1	62	116	-	1	2
Iowa	1	-	133	-	1	-	11	5	50	-	19	31	-	1	1
Mo.	12	1	26	-	6	3	33	2	24	-	22	31	-	1	7
N. Dak.	-	-	25	-	1	2	1	-	3	-	5	10	-	1	2
S. Dak.	2	-	-	-	-	-	5	-	1	-	14	4	-	-	-
Nebr.	4	-	-	-	-	-	11	-	-	-	10	9	-	-	-
Kans.	3	-	94	-	5	1	19	4	57	4	1,288	29	-	10	7
S. ATLANTIC	119	13	748	-	56	332	398	11	235	4	744	512	-	9	52
Del.	1	-	1	-	-	-	4	-	1	-	227	2	-	-	2
Md.	14	-	26	-	9	115	46	1	25	1	164	292	-	-	6
D.C.	3	-	-	-	1	31	4	1	1	-	-	-	-	-	-
Va.	32	-	36	-	24	28	71	2	43	1	41	19	-	-	2
W. Va.	4	-	2	-	-	33	4	-	48	-	25	4	-	-	9
N.C.	6	-	3	-	1	9	63	5	27	2	76	33	-	-	1
S.C.	6	-	274	-	-	3	42	1	14	-	18	2	-	-	3
Ga.	13	-	79	-	14	8	58	-	28	-	132	92	-	-	-
Fla.	40	13	327	-	7	105	106	1	48	-	61	68	-	9	29
E.S. CENTRAL	21	-	63	-	9	7	114	61	125	-	47	64	-	4	3
Ky.	6	-	-	-	6	5	26	-	6	-	5	8	-	4	3
Tenn.	1	-	57	-	1	1	37	61	114	-	16	25	-	-	-
Ala.	10	-	1	-	1	-	37	-	4	-	25	24	-	-	-
Miss.	4	-	5	-	1	1	14	-	1	-	1	7	-	-	-
W.S. CENTRAL	100	-	680	-	38	436	203	6	265	12	250	523	1	71	40
Ark.	1	-	276	-	2	-	27	-	61	-	20	14	1	1	1
La.	18	-	4	-	-	42	26	-	3	-	15	17	-	-	-
Okla.	11	-	37	-	2	1	29	N	N	7	126	165	-	-	2
Tex.	70	-	363	-	34	393	121	6	201	5	89	327	-	70	37
MOUNTAIN	36	-	302	-	29	539	102	5	245	3	269	218	-	24	6
Mont.	-	-	-	-	8	137	10	-	5	1	20	10	-	2	-
Idaho	1	-	1	-	-	137	4	-	8	-	42	16	-	-	2
Wyo.	-	-	-	-	-	5	2	-	-	-	4	1	-	1	-
Colo.	12	-	2	-	6	13	18	1	16	-	66	86	-	1	-
N. Mex.	5	-	33	-	7	6	10	N	N	1	26	12	-	-	2
Ariz.	12	-	252	-	6	241	22	4	193	-	65	40	-	2	1
Utah	3	-	12	-	-	-	10	-	15	1	42	53	-	15	-
Nev.	3	-	2	-	-	-	26	-	8	-	4	-	-	3	1
PACIFIC	443	-	576	-	64	424	451	8	345	6	469	436	10	257	199
Wash.	29	-	139	-	28	142	62	1	18	2	149	80	-	17	14
Oreg.	18	-	7	-	4	5	33	N	N	-	12	49	-	4	2
Calif.	395	-	403	-	30	253	330	7	298	3	291	260	10	230	134
Alaska	-	-	-	-	-	-	14	-	6	-	4	30	-	-	1
Hawaii	1	-	27	-	2	24	13	-	23	-	16	17	-	6	48
Guam	1	-	4	-	1	11	1	-	4	-	-	-	-	4	3
P.R.	4	-	36	-	-	67	3	-	33	-	19	13	-	62	27
V.I.	-	-	-	-	-	10	-	1	17	-	-	-	-	-	-
Pac. Trust Terr.	-	-	-	-	-	-	1	-	11	-	-	-	-	2	-
Amer. Samoa	-	-	2	-	-	-	-	-	5	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 22, 1986 and November 23, 1985 (47th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	24,407	24,354	5	19,844	19,285	150	284	730	4,911
NEW ENGLAND	451	540	-	622	661	1	16	13	8
Maine	19	14	-	34	44	-	-	-	-
N.H.	10	38	-	23	21	-	-	2	1
Vt.	9	7	-	16	8	-	-	-	2
Mass.	240	267	-	346	390	1	13	4	-
R.I.	19	17	-	42	50	-	-	3	3
Conn.	154	197	-	161	148	-	3	4	2
MID ATLANTIC	3,412	3,284	-	3,920	3,471	1	23	35	622
Upstate N.Y.	166	242	-	566	600	-	4	19	80
N.Y. City	1,924	2,004	-	2,050	1,694	-	10	5	-
N.J.	604	623	-	661	479	1	8	2	17
Pa.	718	415	-	643	698	-	1	9	525
E.N. CENTRAL	787	907	1	2,358	2,352	1	23	48	133
Ohio	112	135	-	414	409	-	9	42	16
Ind.	103	74	1	255	302	-	2	-	17
Ill.	370	414	-	1,026	1,018	-	3	2	39
Mich.	162	224	-	560	488	1	6	4	24
Wis.	40	60	-	103	135	-	3	-	37
W.N. CENTRAL	196	213	-	581	538	41	9	47	764
Minn.	31	42	-	136	113	-	2	1	120
Iowa	8	18	-	46	53	1	-	1	176
Mo.	102	116	-	285	258	30	6	24	67
N. Dak.	5	2	-	10	10	-	-	1	145
S. Dak.	9	6	-	28	28	3	-	6	170
Nebr.	11	7	-	14	16	1	-	5	32
Kans.	30	22	-	62	60	6	1	9	54
S. ATLANTIC	7,365	7,024	-	3,983	3,970	12	45	330	1,247
Del.	52	38	-	40	42	-	1	1	1
Md.	406	439	-	289	359	2	15	29	551
D.C.	270	302	-	147	140	1	4	-	31
Va.	315	281	-	334	402	3	10	51	184
W. Va.	20	25	-	115	99	-	3	10	52
N.C.	470	623	-	598	528	3	4	128	10
S.C.	626	720	-	506	480	-	-	70	64
Ga.	1,362	1,259	-	659	660	3	-	39	191
Fla.	3,844	3,339	-	1,297	1,260	-	8	2	163
E.S. CENTRAL	1,604	1,868	-	1,752	1,668	13	4	109	324
Ky.	64	63	-	404	405	5	-	22	99
Tenn.	575	592	-	506	494	6	1	44	109
Ala.	479	611	-	550	492	1	1	25	113
Miss.	486	602	-	292	277	1	2	18	3
W.S. CENTRAL	4,781	5,643	2	2,521	2,457	67	29	137	674
Ark.	243	303	-	340	292	49	-	16	153
La.	829	986	-	393	352	1	1	1	22
Okla.	135	175	2	234	232	12	2	103	57
Tex.	3,574	4,179	-	1,554	1,581	5	26	17	442
MOUNTAIN	541	691	1	483	512	11	16	10	624
Mont.	7	6	-	31	46	1	1	4	200
Idaho	14	7	-	23	25	-	-	2	9
Wyo.	4	12	-	-	5	1	-	1	265
Colo.	126	194	-	47	77	3	1	3	29
N. Mex.	62	120	-	87	82	1	1	-	6
Ariz.	219	290	-	229	227	-	9	-	97
Utah	18	8	1	31	17	4	3	-	7
Nev.	91	54	-	35	33	1	1	-	11
PACIFIC	5,270	4,184	1	3,624	3,656	3	119	1	515
Wash.	152	99	1	198	202	1	3	-	5
Oreg.	107	99	-	113	122	-	-	-	1
Calif.	4,967	3,917	-	3,104	3,070	1	110	1	501
Alaska	10	4	-	46	89	1	1	-	8
Hawaii	34	65	-	163	173	-	5	-	-
Guam	1	2	-	34	38	-	1	-	-
P.R.	798	798	-	305	320	-	5	-	43
V.I.	1	3	-	1	1	-	-	-	-
Pac. Trust Terr.	246	128	-	80	75	-	49	-	-
Amer. Samoa	-	-	-	5	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending November 22, 1986 (47th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	710	487	143	51	14	15	52
Boston, Mass	188	119	36	25	4	2	19
Bridgeport, Conn	56	42	7	4	2	1	3
Cambridge, Mass	17	13	3	1	-	-	3
Fall River, Mass	28	21	5	-	-	-	2
Hartford, Conn	67	41	17	4	3	2	1
Lowell, Mass	17	12	3	2	-	-	1
Lynn, Mass	26	19	6	1	-	-	3
New Bedford, Mass	40	30	9	-	1	-	2
New Haven, Conn	51	28	16	4	2	1	1
Providence, R.I.	73	55	12	2	-	4	6
Somerville, Mass	7	5	1	1	-	-	1
Springfield, Mass	48	33	10	3	-	2	2
Waterbury, Conn	41	29	10	2	-	-	3
Worcester, Mass	55	40	8	2	2	3	5
MID ATLANTIC	2,984	1,952	635	268	71	58	119
Albany, N.Y.	62	45	11	5	1	-	2
Allentown, Pa	25	18	7	-	-	-	-
Buffalo, N.Y.	96	67	16	7	5	1	5
Camden, N.J.	52	31	14	7	-	-	2
Elizabeth, N.J.	15	6	8	1	-	-	1
Erie, Pa †	52	40	8	2	2	-	4
Jersey City, N.J.	40	22	9	7	1	1	4
N.Y. City, N.Y.	1,703	1,095	359	174	43	32	50
Newark, N.J.	62	28	15	14	2	3	5
Paterson, N.J.	31	18	9	1	2	1	2
Philadelphia, Pa	395	269	83	27	7	9	19
Pittsburgh, Pa †	89	60	21	5	2	1	4
Reading, Pa	29	21	7	1	-	-	1
Rochester, N.Y.	94	61	20	9	2	2	5
Schenectady, N.Y.	28	24	4	-	-	-	5
Scranton, Pa †	26	19	7	-	-	-	1
Syracuse, N.Y.	97	66	23	1	2	5	5
Trenton, N.J.	40	23	9	4	1	3	1
Utica, N.Y.	23	19	1	2	1	-	2
Yonkers, N.Y.	25	20	4	1	-	-	1
E.N. CENTRAL	2,418	1,586	527	164	64	77	98
Akron, Ohio	68	47	19	1	-	1	-
Canton, Ohio	46	34	9	2	-	1	5
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	157	107	33	8	6	3	10
Cleveland, Ohio	181	105	52	11	8	5	3
Columbus, Ohio	122	84	25	7	2	4	-
Dayton, Ohio	144	84	40	10	4	6	4
Detroit, Mich	235	138	51	23	14	9	9
Evansville, Ind	43	30	11	2	-	-	1
Fort Wayne, Ind	69	54	8	4	1	2	4
Gary, Ind	14	11	1	2	-	-	-
Grand Rapids, Mich	71	52	10	6	2	1	4
Indianapolis, Ind	186	117	43	16	5	5	3
Madison, Wis	42	26	8	4	4	-	6
Milwaukee, Wis	162	107	38	9	2	6	16
Peoria, Ill	52	45	5	-	1	1	3
Rockford, Ill	46	38	5	1	1	1	5
South Bend, Ind	47	32	9	4	-	2	1
Toledo, Ohio	110	69	25	6	4	6	7
Youngstown, Ohio	59	44	10	3	-	2	2
W.N. CENTRAL	807	560	152	47	18	30	52
Des Moines, Iowa	58	43	9	2	1	3	2
Duluth, Minn	33	21	6	3	2	1	-
Kansas City, Kans	55	38	11	3	3	-	-
Kansas City, Mo	110	86	20	3	1	-	9
Lincoln, Nebr	43	28	11	3	1	-	2
Minneapolis, Minn	111	70	28	8	2	5	6
Omaha, Nebr	108	69	20	9	2	8	5
St Louis, Mo	158	112	30	7	3	6	17
St Paul, Minn	63	43	12	4	1	3	2
Wichita, Kans	68	50	7	5	2	4	9
S. ATLANTIC	1,028	647	221	91	36	32	46
Atlanta, Ga	171	114	29	18	7	3	4
Baltimore, Md	157	96	36	15	6	5	3
Charlotte, N.C.	72	43	22	5	1	1	2
Jacksonville, Fla	120	62	38	10	6	4	7
Miami, Fla	70	43	11	10	4	2	2
Norfolk, Va	72	38	20	8	3	3	6
Richmond, Va	77	47	18	5	2	5	7
Savannah, Ga	52	29	14	5	1	3	4
St Petersburg, Fla	94	80	8	3	2	1	4
Tampa, Fla	70	49	10	4	3	3	7
Washington, D.C.	48	28	10	7	1	2	-
Wilmington, Del	25	19	5	1	-	-	-
E.S. CENTRAL	728	443	179	50	32	24	42
Birmingham, Ala	101	56	26	9	2	8	4
Chattanooga, Tenn	52	33	15	1	2	1	2
Knoxville, Tenn	83	49	18	9	6	1	8
Louisville, Ky	116	65	36	9	4	2	5
Memphis, Tenn	145	87	37	8	6	7	17
Mobile, Ala	70	45	16	6	3	-	-
Montgomery, Ala	57	36	14	2	3	2	4
Nashville, Tenn	104	72	17	6	6	3	2
W.S. CENTRAL	1,464	869	324	138	71	62	62
Austin, Tex	65	43	12	4	3	3	5
Baton Rouge, La	61	39	15	4	2	1	4
Corpus Christi, Tex	50	30	14	4	1	1	1
Dallas, Tex	192	103	41	21	11	16	8
El Paso, Tex	71	39	16	9	4	3	5
Fort Worth, Tex	104	65	24	6	7	2	4
Houston, Tex	288	149	76	34	11	18	6
Little Rock, Ark	72	44	15	8	4	1	6
New Orleans, La	152	97	28	19	7	1	1
San Antonio, Tex	171	101	38	14	12	6	13
Shreveport, La	108	68	21	9	7	3	4
Tulsa, Okla	130	91	24	6	2	7	5
MOUNTAIN	661	417	137	49	32	26	20
Albuquerque, N.Mex	75	51	14	4	5	1	4
Colo Springs, Colo	27	14	8	2	3	-	2
Denver, Colo	133	78	25	15	9	6	4
Las Vegas, Nev	86	49	24	7	4	2	1
Ogden, Utah	22	14	6	1	-	1	1
Phoenix, Ariz	156	99	31	11	8	7	7
Pueblo, Colo	19	17	2	-	-	-	3
Salt Lake City, Utah	52	30	12	4	1	5	-
Tucson, Ariz	91	65	15	5	2	4	7
PACIFIC	1,941	1,313	359	175	50	40	118
Berkeley, Calif	23	17	3	2	-	1	2
Fresno, Calif	106	82	15	4	-	5	21
Glendale, Calif	18	16	-	1	1	-	1
Honolulu, Hawaii	65	37	16	6	2	4	9
Long Beach, Calif	71	53	14	1	1	2	8
Los Angeles, Calif	517	315	107	69	21	3	19
Oakland, Calif	44	27	11	1	2	3	-
Pasadena, Calif	33	26	3	4	-	-	2
Portland, Oreg	150	108	30	6	4	-	7
Sacramento, Calif	150	105	26	13	2	4	10
San Diego, Calif	137	88	23	18	3	5	12
San Francisco, Calif	160	110	30	16	2	-	4
San Jose, Calif	183	128	35	13	5	4	9
Seattle, Wash	179	124	29	18	4	4	3
Spokane, Wash	70	52	12	2	3	1	10
Tacoma, Wash	35	27	5	1	-	2	1
TOTAL	12,141††	8,274	2,677	1,033	388	364	618

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*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§ Data not available. Figures are estimates based on average of past 4 weeks.

Salmonellosis – Continued

Editorial Note: Pet turtles are estimated to have caused 14% of reported cases of salmonellosis in humans in the early 1970s (*2*). Consequently, the interstate and intrastate commercial distribution of turtles <4 inches in carapace diameter was banned in 1975, except for bona-fide scientific, educational, or exhibitional purposes (*3*). After this ban went into effect, turtle-associated salmonellosis in the United States became rare (*4*). However, pet turtles exported from the United States have been associated with human salmonellosis in the United Kingdom (*5*), Japan (*6*), and Yugoslavia (*7*). Recently, in Israel, aquarium cultures of pet turtles imported from the United States yielded *Salmonella*, and that country has temporarily banned the importation of these turtles (*8*). Diversion of these turtles into U.S. markets has been associated with human illness in Puerto Rico and, sporadically, in the continental United States (*7*). Since the importation of small turtles into the United States has long been restricted, turtles for sale in pet stores in the United States are likely to be of U.S. origin (*9*).

Turtles are easily infected with *Salmonella* from the environment and can acquire the organism in ovo or after hatching (*10*). Treating turtle eggs with gentamicin has been proposed as a means of producing *Salmonella*-free turtles (*11*). However, only one evaluation of this technique has been published, and the efficacy of the technique in practice has not been established. The technique may promote gentamicin resistance in *Salmonella*, as a similar technique has when used in treating turkey eggs (*12*). Furthermore, uninfected baby turtles can easily acquire *Salmonella* from other turtles or from the environment after hatching. Turtles also harbor *Campylobacter*, *Aeromonas*, and other potential pathogens (*13,14*). They are not appropriate pets for small children.

Prompt investigation of turtle-associated salmonellosis can prevent further illness. It is particularly important to determine the origin and distribution of the turtles, whether they were hatched from gentamicin-treated eggs, and whether they carry *Salmonella*. Clinicians who encounter cases of turtle-associated salmonellosis are encouraged to report them to local and state public health officials, who, along with Food and Drug Administration officials, can investigate the cases and enforce the law.

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Current Trends

Smoking Prevalence and Cessation in Selected States, 1981-1983 and 1985 — The Behavioral Risk Factor Surveys

From 1981-1983, 28 states and the District of Columbia participated in Behavioral Risk Factor Surveys (BRFS) conducted by the Center for Health Promotion and Education of the Centers for Disease Control. The surveys were designed to study risk factors for the 10 leading causes of premature death in this country (*1*). They included questions on smoking behavior. The Behavioral Risk Factor Surveillance System (BRFSS) began in 1984 as a followup to the BRFS. The purpose of this system is to monitor changes in risk factors by state, over time. The BRFSS operated for the second year in 1985 and included 21 states and the District of Columbia. Thirteen states participated in both the 1981-1983 BRFS and the 1985 BRFSS. Analyses of data from participating states have permitted documentation of changes in smoking behavior between these two time periods.

In both the 1981-1983 BRFS and the 1985 BRFSS, data were collected by telephone from persons ≥18 years of age who were selected using random digit dialing techniques (*1,2*). In these surveys, an "ever smoker" was defined as a respondent who reported smoking ≥100 cigarettes in his or her lifetime. A "current smoker" was defined as a respondent who had smoked ≥100 cigarettes and who was still smoking. A "former smoker" was defined as a respondent who was not currently smoking, but who reported having smoked ≥100 cigarettes during his or her lifetime. The "quit ratio" was defined as the ratio of "former smokers" to "ever smokers". In the 1985 survey, an "attempter" was defined as a current smoker who had quit smoking for ≥1 week in the past year. Tables 2 and 3 show the quit ratios and the prevalences of current smokers for both the 1981-1983 BRFS and the 1985 BRFSS. They also show the prevalences of attempters in the states participating in the 1985 BRFSS.

In 1985, women in five states (Connecticut, Florida, Montana, Rhode Island, and Wisconsin) reported current smoking at a rate equal to or greater than the rate reported by men. In all but one state, the percentage of current smokers among men decreased between the period 1981-1983 and 1985. However, these decreases were statistically significant in only three states: Kentucky, North Carolina, and Tennessee. The prevalence of smoking among women declined between the period 1981-1983 and 1985 in nine of the 13 states, but none of these changes in prevalence reached statistical significance. In 10 of the 13 states, the percentage decrease in current smoking among men between the period 1981-1983 and 1985 was greater than the percentage decrease among women.

In 1985, the male quit ratio in every state but two was higher than the female quit ratio. In 11 of the 13 states with data for both survey periods, the male quit ratio was greater in 1985 than for the period 1981-1983; in the remaining two states, the 1985 male quit ratio was less than or equal to the 1981-1983 ratio. In nine of the 13 states, women had a greater quit ratio in 1985 than for the period 1981-1983, and in the remaining four states their quit ratio was less in 1985.

While the quit ratio is a measure of cessation over an extended time period, attempts to quit, which were measured in 1985, indicate recent cessation efforts by current smokers. In 16 of 22 states, the percentage of male attempters was greater than the percentage of female attempters.

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Smoking – Continued

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Editorial Note: Prevention and cessation of smoking will accomplish significant improvements in health status (*3,4*). While the favorable decreasing trend in smoking prevalence seen in 13 selected states does not necessarily reflect the degree of change in the entire country, it is consistent with the national trend observed since 1965 (*5,6*).

More men appear to be stopping smoking than women, even though the smoking hazards for both men and women have been widely publicized. The 1980 Surgeon General's report indicated that smoking cessation is more difficult for women than for men (*7*).

TABLE 2. Male smoking prevalence and cessation by state, 1981-1983 and 1985 behavioral risk factor surveys

State	1981-1983 % Current smokers	1985 % Current smokers	% Change	95% C.L.	1981-1983 Quit ratio	1985 Quit ratio	1985 % Attempters
Arizona	33.0	28.1	−4.9	(−12.5,+2.7)	43.5	49.2	44.4
California	30.9	26.3	−4.6	(−10.2,+1.0)	46.6	54.0	47.2
Connecticut	*	28.2			*	53.1	42.5
District of Columbia	34.9	29.0	−5.9	(−15.5,+3.7)	37.1	40.0	54.0
Florida	33.7	26.9	−6.8	(−15.5,+1.9)	45.9	55.6	41.2
Georgia	32.9	38.0	+5.0	(−3.7,+13.9)	40.9	37.5	46.3
Idaho	*	27.7			*	50.8	42.0
Illinois	*	26.2			*	55.0	33.1
Indiana	38.6	36.8	−1.7	(−10.6,+7.2)	38.6	44.7	39.9
Kentucky	48.0	33.1	−14.9†	(−24.3,−5.5)	27.9	45.5	42.6
Minnesota	*	31.1			*	47.4	43.6
Montana	29.9	24.3	−5.6	(−13.6,+2.4)	50.4	57.1	32.3
North Carolina	47.8	31.4	−16.4†	(−25.4,−7.6)	31.7	43.3	36.4
North Dakota	*	25.9			*	57.9	40.1
New York	34.3	32.7	−1.6	(−8.7,+5.5)	44.9	44.8	43.9
Ohio	35.8	31.9	−4.0	(−12.1,+4.1)	40.3	44.4	43.4
Rhode Island	*	27.5			*	52.6	39.3
South Carolina	*	34.9			*	39.6	44.3
Tennessee	39.5	30.8	−8.6†	(−16.3,−0.9)	33.3	45.4	37.1
Utah	*	17.9			*	54.7	38.2
West Virginia	36.9	28.7	−8.2	(−15.9,+0.5)	42.2	52.8	46.4
Wisconisn	*	24.6			*	59.7	41.6
Median	34.9	28.5	−5.6		40.9	50.0	42.3

*Not collected in 1981-1983 BRFS.

†$p = <0.05$, z test.

Smoking – Continued

Approximately two-fifths of both men and women smokers reported stopping smoking for ≥1 week in the past 12 months. This is over twice the rate (15%) of yearly attempts to quit smoking reported elsewhere (*8*). Increased cessation efforts may be due to policies against smoking in public places and worksites, growing societal pressure against smoking, increased tobacco costs, increased awareness of health consequences, and greater availability of formal smoking cessation programs (*8*).

The information reported here shows important, consistent changes in smoking behavior that will provide substantial health benefits to the nation. Four states (Idaho, Montana, Utah, and Wisconsin) have reached the 25% smoking prevalence stated as a goal in the 1990 Objectives for the Nation (*2,9*). However, even this prevalence will translate into substantial disease risk. The growing emergence of women as the group showing the slowest decline in smoking is disturbing and indicates a need for additional efforts in cessation and prevention of smoking among women. Further analyses of BRFSS data from participating states may identify other groups that need to be targeted by prevention and cessation strategies.

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TABLE 3. Female smoking prevalence and cessation by state, 1981-1983 and 1985 behavioral risk factor surveys

State	1981-1983 % Current smokers	1985 % Current smokers	% Change	95% C.L.	1981-1983 Quit ratio	1985 Quit ratio	1985 % Attempters
Arizona	29.7	24.8	−4.9	(−10.8,+1.0)	33.8	39.7	41.6
California	26.1	24.9	−1.1	(−5.8,+3.6)	42.5	36.9	42.3
Connecticut	*	28.2			*	49.7	42.0
District of Columbia	31.6	23.5	−8.1	(−15.9,+0.3)	28.2	44.6	51.1
Florida	31.2	27.4	−3.7	(−11.7,+4.3)	34.8	43.5	41.1
Georgia	24.8	20.5	−4.2	(−10.5,+2.1)	32.8	45.0	39.4
Idaho	*	19.9			*	47.9	35.8
Illinois	*	26.1			*	38.7	36.2
Indiana	27.6	27.9	+0.3	(−6.8,+7.4)	29.8	35.1	35.5
Kentucky	26.1	25.7	−0.4	(−7.5,+6.7)	31.4	34.0	36.1
Minnesota	*	24.8			*	40.4	37.8
Montana	21.5	24.8	+3.2	(−2.8,+9.2)	47.8	41.6	44.0
North Carolina	28.5	23.8	−4.7	(−11.1,+1.7)	27.4	37.6	37.4
North Dakota	*	25.2			*	34.2	52.1
New York	28.2	30.2	+2.0	(−3.5,+7.5)	41.4	35.5	39.6
Ohio	25.1	25.8	+0.7	(−5.5,+6.9)	33.7	37.4	39.9
Rhode Island	*	31.0			*	37.7	44.1
South Carolina	*	24.0			*	34.4	46.6
Tennessee	26.2	24.6	−1.6	(−6.9,+3.7)	35.8	32.1	36.5
Utah	*	13.4			*	42.1	30.0
West Virginia	28.0	24.9	−3.2	(−10.7,+4.2)	25.3	38.7	34.7
Wisconsin	*	24.6			*	44.2	41.0
Median	27.6	24.9	−3.2		33.7	38.7	39.8

*Not collected in 1981-1983 BRFS.

Smoking – Continued

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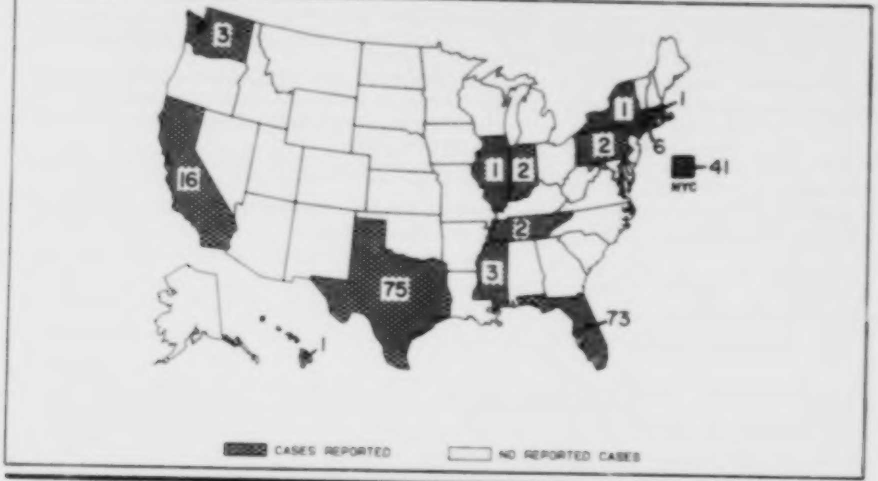
FIGURE I. Reported measles cases — United States, weeks 43-46, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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CENTERS FOR DISEASE CONTROL

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MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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Perspectives in Disease Prevention and Health Promotion

Workplace Smoking Survey — New York City

During the period May 16-23, 1986, employees of the New York City Department of Health (NYCDOH) participated in a survey regarding smoking practices and attitudes toward a workplace smoking policy. The survey was conducted to obtain baseline information for evaluating the impact of a smoking policy initiated by the mayor and scheduled to be implemented July 1, 1986. It was also intended to familiarize employees with the policy.

Questionnaires were completed by employees who volunteered to attend one of several NYCDOH meetings concerning the mayor's proposed legislation and pending executive order about smoking restrictions. Of the estimated 900 employees in the department's primary office building, 608 attended the meetings, and 496 completed the survey. Thus, 55% of the total employees and 82% of those attending the meetings completed the questionnaire. Of the respondents, 137 (28%) currently smoked cigarettes, eight (2%) smoked pipes or cigars, 333 (67%) were nonsmokers, and 18 (4%) did not answer this question. The female to male ratio of respondents was 2.5:1. Thirty-one percent of the males and 28% of the females were current smokers. Eighteen percent of the smokers smoked a pack or more of cigarettes per day. Sixteen percent of the cigarette smokers reported that they did not smoke at work. Fifty-nine percent of nonsmokers reported at least occasional exposure to tobacco smoke from others in the workplace; 56% of nonsmokers reported at least occasional exposure to tobacco smoke from the visiting public.

Regarding employee attitudes toward smoking in the workplace, 63% of all respondents (26% of smokers and 79% of nonsmokers) reported being annoyed when other employees smoked nearby. Of nonsmokers, 38% reported that, when exposed to tobacco smoke, they would like to ask smokers to stop but are hesitant to do so. Thirty-three percent of nonsmokers reported that they were able to work without noticing smoke. Twenty-nine percent reported that they try to move away when other employees smoke. Overall, 82% of the respondents (including 69% of smokers) indicated that smoking in the workplace should be either limited (65%) or banned (17%). Most respondents indicated that restricting smoking in the NYCDOH would have no adverse effect on relations among their co-workers (87%), on their job performance (94%), or on their office morale (90%). Of current smokers, 46% indicated they would quit or reduce their smoking if workplace smoking were restricted.

HE 20.7009:

Smoking Survey — Continued

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Editorial Note: The control of smoking and tobacco smoke exposure in the workplace has become an important public health issue in the United States in recent years. No studies have yet quantified the nonsmoking worker's risk of lung cancer from chronic exposure to tobacco smoke in the workplace. However, numerous studies have documented that nonsmoking wives of smoking men have a risk of lung cancer that is between 14% and 34% higher than that of wives of nonsmoking men (*1*). In addition, it has been shown that employees exposed to sidestream tobacco smoke in the work environment are at greater risk of developing small airways dysfunction than are nonexposed employees (*2*). Small airways disease, which is the first pathological change seen in beginning smokers (*3*), may increase the risk of developing disabling chronic airways obstruction (*4*).

As a consequence of data such as these concerning the effects of sidestream tobacco smoke exposure, an increasing number of employers have instituted policies to control smoking in the workplace. While some policies and control measures have been adopted voluntarily, others have been required by legislative actions. There are already laws in 17 states and ordinances in at least 100 localities regulating workplace smoking (Office on Smoking and Health, unpublished data). In one recent national survey, 36% of 662 responding employers reported having established workplace smoking policies; an additional 2% planned to enact policies by the end of 1986, and 21% reported that policies were under consideration (*5*).

Despite the voluntary nature of the NYCDOH survey, the results are consistent with previously reported findings concerning employee knowledge, attitudes, and smoking practices in the workplace (*6-10*). Since this represents 55% of total NYCDOH employees, however, these results should be interpreted with caution. Smoking prevalence among respondents in this survey (28%) is similar to the estimates of national smoking prevalence (30%) (*11*). It is also similar to the prevalence reported for white collar workers (32% of females, 33% of males) (*12*) and for those in a surveyed private workplace (33%) (*6*).

In most surveys, the majority of respondents have approved of some limitation of smoking in the workplace (*6-10*). A nationwide survey commissioned by the American Lung Association (*13*) asked 1,540 randomly selected individuals whether companies should have a policy on smoking at work. Eighty-seven percent of all respondents—including 80% of smokers—indicated that smoking in the workplace should be limited. Surveys of employees at individual workplaces have provided similar support for smoking restrictions. For example, 74% of employees at a large health maintenance organization approved of a smoking prohibition policy 4 months after implementation of the policy (*7*). In another survey, 71% of all employees indicated that smoking in the immediate work area should be restricted (80% of nonsmokers and 51% of smokers) (*6*).

Policies limiting smoking in the workplace not only protect nonsmokers from the health effects of passive smoking but also may encourage smokers to quit or reduce smoking. In one survey, 51% of the employees who smoked indicated that workplace smoking regulations might prompt them to reduce smoking or try to quit smoking completely (*6*). In the NYCDOH survey, the majority of participating employees were in favor of restricting smoking in the workplace.

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Epidemiologic Notes and Reports

Tularemia — New Jersey

On December 3, 1985, a 67-year-old woman died from tularemia in a New Jersey hospital. She had been admitted 7 days previously with a metabolic acidosis secondary to combined dehydration and sepsis. On admission, she had an "unhealing sore" on the first finger of her right hand. Initial treatment included gentamicin and cefazolin, as well as insulin for uncontrolled, late-onset diabetes. After 3 days, the treatment was changed to streptomycin. Despite these measures, disseminated intravascular coagulation, respiratory failure, and hypotension developed, and the woman died.

The case history showed that on November 9, 1985, an 18-year-old neighbor had shot two rabbits behind his home in Gloucester County, New Jersey. After eviscerating the animals, he gave them to the patient and her 64-year-old husband, who skinned and froze the rabbits. During the summer, the young man had noticed several dead rabbits around his house and had attributed their deaths to insecticide that had been sprayed on local fields. One of the two rabbits he shot was noted to be losing its fur.

Two days after dressing out the rabbits, the young man became ill with an ulcerated hand lesion, axillary lymphadenopathy, and a fever. He was examined at the local hospital; no diagnosis was made, but he was treated with antipyretics. On November 23, his two neighbors—the recipients of the rabbits—were admitted to the local hospital. They both had sepsis and hand lesions. On November 26, following instructions from the hospital, the young hunter was started on streptomycin, and he recovered rapidly.

Tularemia – Continued

The woman's original titer for tularemia, drawn November 23, was less than 20. Her titer rose to 160 after 10 days. First samples from both men were drawn late in the disease. The hunter's first blood specimen was drawn on November 29, when his titer was 1,280. It was reported as 2,560 after 7 days. Blood specimens from the husband were drawn December 3, when his titer was 320, and the level rose to 1,280 after 14 days.

The two rabbits were sent to CDC for analysis. Cultures from the bone marrow of both animals grew *Francisella tularensis*.

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Editorial Note: Six cases of tularemia had been reported in New Jersey over the 5-year period prior to this outbreak. One case, in 1985, was also associated with rabbits. No tularemia deaths had been reported in the state in the previous 5 years.

The association between rabbits and human tularemia was first documented in 1913 (*1*), and rabbit contact was implicated in 90% of the more than 14,000 cases reported through

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TABLE I. Summary – cases specified notifiable diseases, United States

Disease	48th Week Ending			Cumulative, 48th Week Ending		
	Nov 29, 1986	Nov 30, 1985	Median 1981-1985	Nov 29, 1986	Nov 30, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	76	110	N	12,062	7,280	N
Aseptic meningitis	146	173	222	9,715	9,631	8,956
Encephalitis: Primary (arthropod-borne & unspec.)	10	9	22	1,113	1,220	1,430
Post-infectious	-	1	2	93	112	83
Gonorrhea: Civilian	13,605	14,484	15,535	817,442	819,309	831,394
Military	218	216	240	15,544	19,346	22,245
Hepatitis: Type A	416	518	476	20,729	21,099	21,099
Type B	390	546	512	23,431	24,159	22,014
Non A, Non B	37	59	N	3,182	3,764	N
Unspecified	64	111	125	4,074	5,297	6,686
Legionellosis	11	20	N	733	713	N
Leprosy	4	4	4	228	342	221
Malaria	15	12	14	1,027	951	951
Measles: Total*	29	34	15	5,914	2,704	2,516
Indigenous	28	34	N	5,616	2,272	N
Imported	1	-	N	292	432	N
Meningococcal infections: Total	31	40	47	2,214	2,190	2,508
Civilian	31	40	47	2,212	2,183	2,493
Military	-	-	-	2	7	13
Mumps	167	52	67	4,878	2,709	3,044
Pertussis	37	65	36	3,943	3,276	2,150
Rubella (German measles)	3	4	11	477	601	914
Syphilis (Primary & Secondary): Civilian	425	463	521	24,840	24,817	28,595
Military	2	3	3	146	150	351
Toxic Shock syndrome	7	7	N	318	345	N
Tuberculosis	255	334	515	20,103	19,619	21,575
Tularemia	-	3	3	150	170	260
Typhoid fever	4	4	4	289	354	365
Typhus fever, tick-borne (RMSF)	2	4	5	735	675	949
Rabies, animal	44	68	90	4,992	4,982	5,602

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1986		Cum. 1986
Anthrax	-	Leptospirosis (Tex. 1)	37
Botulism: Foodborne	18	Plague	8
Infant (Tex. 1, Utah 1, Oreg. 1)	64	Poliomyelitis, Paralytic	1
Other	1	Psittacosis (Mich. 1)	88
Brucellosis	77	Rabies, human	-
Cholera	16	Tetanus (Tex. 1)	59
Congenital rubella syndrome	10	Trichinosis	31
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine) (Tex. 1)	46
Diphtheria	-		

*One of the 29 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending November 29, 1986 and November 30, 1985 (48th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1986	1986	Cum. 1986	Cum. 1986	Cum. 1986	Cum. 1985	1986	1986	1986	1986	1986	Cum. 1986
UNITED STATES	12,052	146	1,113	93	817,442	819,309	416	390	37	64	11	228
NEW ENGLAND	479	10	29	3	22,013	20,879	12	41	-	11	1	8
Maine	20	-	2	-	789	1,067	1	1	-	-	-	-
N.H.	13	-	2	-	529	523	-	-	-	-	-	-
Vt.	5	2	4	2	246	307	-	-	-	1	1	-
Mass.	254	1	5	-	7,983	8,636	2	30	-	10	-	8
R.I.	31	3	-	-	1,710	1,724	3	3	-	-	-	-
Conn.	156	4	16	1	10,756	8,622	6	7	-	-	-	-
MID ATLANTIC	4,417	8	97	10	142,792	119,042	7	23	-	21	-	17
Upstate N.Y.	487	3	35	6	17,218	16,772	3	8	-	-	-	1
N.Y. City	2,998	3	19	1	82,811	58,145	-	-	-	19	-	15
N.J.	664	2	10	-	18,120	17,856	4	15	-	2	-	-
Pa.	268	-	33	3	24,643	26,269	-	-	-	-	-	1
E.N. CENTRAL	725	19	338	11	106,249	107,001	5	30	-	1	3	4
Ohio	154	9	130	3	27,344	29,345	2	22	-	-	3	-
Ind.	59	7	79	3	11,380	11,479	1	2	-	1	-	-
Ill.	347	-	50	4	25,340	25,109	-	-	-	-	-	4
Mich.	127	3	53	1	34,685	30,751	2	6	-	-	-	1
Wis.	38	-	26	-	7,248	10,317	-	-	-	-	-	-
W.N. CENTRAL	225	14	81	9	35,215	38,202	12	13	2	-	-	4
Minn.	88	-	34	-	5,084	5,649	6	5	-	-	-	2
Iowa	18	2	26	-	3,602	4,114	-	-	-	-	-	-
Mo.	72	9	2	-	17,429	18,423	1	8	1	-	-	-
N. Dak.	2	-	4	-	290	258	-	-	-	-	-	-
S. Dak.	2	-	11	-	720	736	2	-	1	-	-	-
Nebr.	10	-	1	1	2,602	3,257	1	-	-	-	-	-
Kans.	33	3	3	8	5,488	5,765	2	-	-	-	-	2
S. ATLANTIC	1,735	17	144	37	211,254	214,043	32	113	13	5	2	3
Del.	22	-	6	-	3,483	4,152	1	-	-	-	-	-
Md.	183	3	31	1	25,081	27,216	-	2	1	-	-	-
D.C.	222	1	-	1	15,870	14,663	2	2	-	-	-	-
Va.	137	2	40	1	17,520	17,866	4	7	2	1	2	1
W. Va.	7	1	45	-	2,063	2,419	-	4	1	-	-	-
N.C.	73	4	18	2	32,829	33,800	1	8	3	1	-	-
S.C.	47	-	-	-	17,943	20,139	6	22	-	-	-	-
Ga.	266	2	-	1	35,232	41,607	6	21	-	-	-	-
Fla.	778	4	4	31	61,243	52,121	12	47	6	3	-	2
E.S. CENTRAL	147	20	61	4	65,474	70,921	2	20	-	-	-	1
Ky.	28	11	30	1	7,214	8,111	-	1	-	-	-	-
Tenn.	70	2	8	1	24,787	27,279	1	10	-	-	-	-
Ala.	25	7	22	2	19,225	21,251	1	8	-	-	-	1
Miss.	24	-	1	-	14,248	14,280	-	1	-	-	-	-
W.S. CENTRAL	1,068	28	180	6	95,304	103,378	39	23	2	9	1	23
Ark.	29	-	-	2	9,018	9,666	1	2	-	-	-	1
La.	143	3	16	-	16,399	19,430	3	4	-	-	1	1
Okla.	41	2	21	-	10,917	11,547	5	3	1	-	-	-
Tex.	855	23	143	4	58,970	62,735	30	14	1	9	-	21
MOUNTAIN	323	5	38	1	24,150	25,964	77	37	2	5	1	13
Mont.	4	-	1	1	633	746	1	1	-	-	1	-
Idaho	3	-	-	-	800	897	8	2	-	-	-	-
Wyo.	4	-	2	-	500	594	-	-	-	-	-	-
Colo.	156	1	5	-	6,208	7,553	4	5	-	2	-	3
N. Mex.	23	-	3	-	2,556	2,878	31	7	1	-	-	-
Ariz.	80	4	18	-	7,783	7,911	32	18	-	3	-	7
Utah	18	-	7	-	1,029	1,259	-	3	-	-	-	1
Nev.	35	-	2	-	4,641	4,116	1	1	1	-	-	2
PACIFIC	2,933	25	145	12	114,991	119,889	230	90	18	12	3	155
Wash.	157	2	13	-	8,367	9,246	46	14	4	3	-	16
Oreg.	58	-	-	-	5,051	5,960	25	8	4	-	-	-
Calif.	2,656	21	124	12	98,190	100,250	151	68	9	8	3	106
Alaska	12	-	7	-	2,442	2,870	8	-	1	1	-	-
Hawaii	50	2	1	-	1,193	1,573	-	-	-	-	-	33
Guam	-	-	-	-	201	181	-	-	-	-	-	1
P.R.	139	-	5	1	2,237	2,912	-	1	-	-	-	7
V.I.	5	-	-	-	254	378	-	1	-	-	-	-
Pac. Trust Terr.	-	-	-	-	429	766	-	-	-	-	-	56
Amer. Samoa	-	-	-	-	53	-	-	-	-	-	-	3

N: Not notifiable   U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 29, 1986 and November 30, 1985 (48th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	1,027	28	5,616	1	292	2,704	2,214	167	4,878	37	3,943	3,275	3	477	801
NEW ENGLAND	62	-	88	-	16	126	159	-	65	2	159	204	-	9	13
Maine	2	-	12	-	1	1	27	-	-	-	2	9	-	-	-
N.H.	3	-	43	-	-	-	6	-	14	1	82	112	-	1	3
Vt.	2	-	-	-	-	-	19	-	4	-	3	3	-	1	-
Mass.	32	-	24	-	13	118	45	-	14	1	42	47	-	4	6
R.I.	7	-	2	-	-	-	21	-	11	-	6	22	-	2	-
Conn.	16	-	7	-	2	7	41	-	22	-	24	11	-	1	4
MID ATLANTIC	141	-	1,729	-	34	232	344	5	203	5	202	242	-	37	228
Upstate N.Y.	48	-	77	-	24	85	122	1	66	1	125	115	-	27	18
N.Y. City	31	-	723	-	4	79	70	-	29	-	10	29	-	5	185
N.J.	37	-	905	-	4	28	30	1	51	2	20	11	-	5	11
Pa.	25	-	24	-	2	40	122	3	57	2	47	87	-	-	14
E.N. CENTRAL	61	-	1,079	-	28	582	321	89	3,173	8	375	709	-	49	38
Ohio	19	-	-	-	10	60	132	4	132	8	167	117	-	1	-
Ind.	2	-	27	-	11	57	34	-	40	-	35	201	-	-	1
Ill.	16	-	699	-	4	346	74	84	2,412	-	36	74	-	38	20
Mich.	20	-	75	-	-	60	69	1	339	-	35	48	-	8	16
Wis.	4	-	278	-	3	59	11	-	250	-	99	359	-	2	1
W.N. CENTRAL	30	-	323	-	17	12	104	12	161	-	1,406	234	-	14	19
Minn.	8	-	45	-	4	6	23	5	18	-	48	116	-	1	2
Iowa	1	-	133	-	1	-	11	7	57	-	19	31	-	1	1
Mo.	12	-	28	-	6	3	34	-	24	-	22	32	-	1	7
N. Dak.	-	-	25	-	1	2	1	-	4	-	5	10	-	1	2
S. Dak.	2	-	-	-	-	-	5	-	1	-	14	5	-	-	-
Nebr.	4	-	-	-	-	-	11	-	-	-	10	11	-	-	-
Kans.	3	-	94	-	5	1	19	-	57	-	1,288	29	-	10	7
S. ATLANTIC	122	27	775	-	56	340	403	7	242	5	749	535	2	11	52
Del.	1	-	1	-	-	-	5	-	1	-	227	2	-	-	2
Md.	14	-	26	-	9	116	46	1	26	-	164	311	-	-	6
D.C.	6	-	-	-	1	31	5	-	1	-	-	-	-	-	-
Va.	32	-	36	-	24	28	71	1	44	-	41	20	-	-	2
W. Va.	4	-	2	-	-	33	4	-	48	1	26	4	-	-	9
N.C.	6	-	3	-	1	9	63	1	28	3	79	34	-	-	1
S.C.	6	-	274	-	-	3	44	1	15	-	18	2	-	-	3
Ga.	13	-	79	-	14	8	58	-	28	-	132	92	-	-	-
Fla.	40	27	354	-	7	113	107	3	51	1	62	70	2	11	29
E.S. CENTRAL	21	-	63	-	9	7	114	39	164	-	47	67	-	4	3
Ky.	6	-	-	-	6	5	26	-	6	-	5	8	-	4	3
Tenn.	1	-	57	-	1	1	37	39	153	-	16	26	-	-	-
Ala.	10	-	1	-	1	-	37	-	4	-	25	26	-	-	-
Miss.	4	-	5	-	1	1	14	-	1	-	1	7	-	-	-
W.S. CENTRAL	103	-	680	-	38	440	206	3	268	-	250	533	-	71	42
Ark.	1	-	276	-	2	-	27	-	61	-	20	14	-	1	1
La.	18	-	4	-	-	42	26	-	3	-	15	17	-	-	-
Okla.	12	-	37	-	2	1	30	N	N	-	126	166	-	-	2
Tex.	72	-	363	-	34	397	123	3	204	-	89	336	-	70	39
MOUNTAIN	38	-	302	-	29	541	104	3	248	4	273	220	-	24	6
Mont.	1	-	-	-	8	137	10	1	6	-	20	10	-	2	-
Idaho	1	-	1	-	-	137	4	-	8	4	46	17	-	-	2
Wyo.	-	-	-	-	-	5	2	-	-	-	4	1	-	1	-
Colo.	12	-	2	-	8	15	19	1	17	-	66	87	-	1	-
N. Mex.	5	-	33	-	7	6	11	N	N	-	26	12	-	-	2
Ariz.	13	-	252	-	6	241	22	-	193	-	65	40	-	2	1
Utah	3	-	12	-	-	-	10	-	15	-	42	53	-	15	-
Nev.	3	-	2	-	-	-	26	1	9	-	4	-	-	3	1
PACIFIC	449	1	577	1	65	424	459	9	354	13	482	441	1	258	200
Wash.	29	1	140	-	28	142	63	-	18	-	149	82	-	17	14
Oreg.	19	-	7	-	4	5	36	N	N	2	14	50	-	4	2
Calif.	400	-	403	1†	31	253	334	7	305	8	297	262	1	231	135
Alaska	-	-	-	-	-	-	14	2	8	1	5	30	-	-	1
Hawaii	1	-	27	-	2	24	13	-	23	4	20	17	-	6	48
Guam	1	-	4	-	1	11	1	-	4	-	-	-	-	4	3
P.R.	4	-	36	-	-	67	3	-	33	-	19	15	-	62	27
V.I.	-	-	-	-	-	10	-	-	17	-	-	-	-	-	-
Pac. Trust Terr.	-	-	-	-	-	-	1	-	11	-	-	-	-	2	-
Amer. Samoa	-	-	2	-	-	-	-	-	5	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 29, 1986 and November 30, 1985 (48th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1986	Cum. 1985	1986	Cum. 1986	Cum. 1985	Cum. 1986	Cum. 1986	Cum. 1986	Cum. 1986
UNITED STATES	24,840	24,817	7	20,103	19,619	150	289	735	4,992
NEW ENGLAND	457	547	-	625	664	1	16	13	8
Maine	19	15	-	34	45	-	-	-	-
N.H.	10	38	-	23	21	-	-	2	1
Vt.	9	7	-	16	8	-	-	-	2
Mass.	246	270	-	347	391	1	13	4	-
R.I.	19	17	-	42	50	-	-	3	3
Conn.	154	200	-	163	149	-	3	4	2
MID. ATLANTIC	3,492	3,348	3	3,974	3,502	1	24	40	634
Upstate N.Y.	170	244	-	576	600	-	4	20	81
N.Y. City	1,958	2,030	-	2,078	1,715	-	11	5	-
N.J.	609	643	3	673	479	1	8	2	17
Pa.	755	431	-	647	708	-	1	13	536
E.N. CENTRAL	792	917	-	2,379	2,394	1	23	46	134
Ohio	117	135	-	419	410	-	9	40	16
Ind.	103	75	-	258	309	-	2	-	17
Ill.	370	414	-	1,026	1,042	-	3	2	39
Mich.	162	233	-	572	498	1	6	4	24
Wis.	40	60	-	104	135	-	3	-	38
W.N. CENTRAL	198	218	-	585	560	41	9	48	766
Minn.	31	42	-	136	118	-	2	1	120
Iowa	8	18	-	46	53	1	-	1	177
Mo.	104	121	-	289	270	30	6	24	67
N. Dak.	5	2	-	10	10	-	-	1	146
S. Dak.	9	6	-	28	31	3	-	6	170
Nebr.	11	7	-	14	16	1	-	5	32
Kans.	30	22	-	62	62	6	1	10	54
S. ATLANTIC	7,455	7,113	-	4,048	4,031	12	46	330	1,263
Del.	53	36	-	42	42	-	1	1	1
Md.	423	461	-	289	360	2	15	29	559
D.C.	274	306	-	152	141	1	4	-	31
Va.	316	282	-	344	406	3	10	51	189
W. Va.	20	25	-	115	102	-	3	10	53
N.C.	488	634	-	596	538	3	4	128	10
S.C.	646	743	-	516	489	-	-	70	64
Ga.	1,391	1,287	-	668	677	3	-	39	193
Fla.	3,844	3,339	-	1,326	1,276	-	8	2	163
E.S. CENTRAL	1,667	1,933	-	1,772	1,692	13	4	110	354
Ky.	65	65	-	404	414	5	-	22	100
Tenn.	575	592	-	508	502	6	1	45	138
Ala.	485	611	-	557	499	1	1	25	113
Miss.	542	665	-	303	277	1	2	18	3
W.S. CENTRAL	4,867	5,743	1	2,541	2,508	67	29	137	685
Ark.	243	308	-	343	292	49	-	16	155
La.	847	1,008	-	393	369	1	1	1	22
Okla.	137	178	-	235	236	12	2	103	57
Tex.	3,640	4,249	1	1,570	1,611	5	26	17	451
MOUNTAIN	561	714	-	494	527	11	16	10	630
Mont.	7	6	-	31	46	1	1	4	204
Idaho	14	7	-	23	25	-	-	2	9
Wyo.	4	14	-	-	7	1	-	1	266
Colo.	126	201	-	51	83	3	1	3	29
N. Mex.	68	120	-	92	83	1	1	-	6
Ariz.	233	297	-	231	230	-	9	-	98
Utah	18	9	-	31	17	4	3	-	7
Nev.	91	60	-	35	36	1	1	-	11
PACIFIC	5,351	4,284	3	3,685	3,741	3	123	1	518
Wash.	152	99	1	202	204	1	3	-	5
Oreg.	107	100	-	118	124	-	-	-	1
Calif.	5,047	4,014	2	3,154	3,141	1	114	1	504
Alaska	10	4	-	46	95	1	1	-	8
Hawaii	35	67	-	165	177	-	5	-	-
Guam	1	2	-	34	38	-	1	-	-
P.R.	808	813	-	305	330	-	5	-	43
V.I.	1	3	-	1	1	-	-	-	-
Pac. Trust Terr.	246	128	-	81	75	-	49	-	-
Amer. Samoa	-	-	-	5	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending November 29, 1986 (48th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	552	397	98	31	8	18	42
Boston, Mass.	118	68	30	7	4	9	14
Bridgeport, Conn.	40	29	8	3	-	-	1
Cambridge, Mass.	29	22	4	3	-	-	3
Fall River, Mass.	18	14	4	-	-	-	-
Hartford, Conn.§	64	46	11	4	2	1	2
Lowell, Mass.	18	13	2	2	1	-	-
Lynn, Mass.	17	17	-	-	-	-	1
New Bedford, Mass.	19	16	2	1	-	-	1
New Haven, Conn.	50	30	10	7	-	3	5
Providence, R.I.	32	27	3	1	-	1	2
Somerville, Mass.	9	5	4	-	-	-	1
Springfield, Mass.	42	38	3	1	-	-	4
Waterbury, Conn.	31	24	4	2	-	1	5
Worcester, Mass.	65	48	13	-	1	3	3
MID. ATLANTIC	2,617	1,714	531	263	56	53	121
Albany, N.Y.	50	32	7	7	3	1	2
Allentown, Pa.	23	18	5	-	-	-	-
Buffalo, N.Y.	77	49	16	9	2	1	8
Camden, N.J.	25	15	4	4	1	1	2
Elizabeth, N.J.	28	20	4	4	-	-	2
Erie, Pa.†	37	27	6	1	1	2	4
Jersey City, N.J.	37	26	9	2	-	-	2
N.Y. City, N.Y.	1,453	923	296	173	34	27	43
Newark, N.J.	40	25	9	5	-	1	-
Paterson, N.J.	38	12	10	7	2	7	3
Philadelphia, Pa.	371	244	89	26	6	6	24
Pittsburgh, Pa.†	72	47	17	6	1	1	3
Reading, Pa.	31	24	5	2	-	-	2
Rochester, N.Y.	114	88	16	4	4	2	10
Schenectady, N.Y.	23	16	7	-	-	-	1
Scranton, Pa.†	22	20	2	-	-	-	1
Syracuse, N.Y.	90	62	19	6	2	1	5
Trenton, N.J.	36	23	7	5	-	1	-
Utica, N.Y.	13	9	-	2	-	2	3
Yonkers, N.Y.	37	34	3	-	-	-	6
E.N. CENTRAL	1,935	1,271	408	145	47	64	82
Akron, Ohio	29	24	3	2	-	-	-
Canton, Ohio	28	21	5	1	-	1	2
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio§	138	93	29	8	3	5	9
Cleveland, Ohio	143	82	37	13	1	10	1
Columbus, Ohio	175	104	44	16	7	4	12
Dayton, Ohio	75	48	18	6	1	2	2
Detroit, Mich.	150	89	26	19	9	7	4
Evansville, Ind.	19	13	3	-	1	2	1
Fort Wayne, Ind.	53	34	9	7	2	1	4
Gary, Ind.	13	6	4	2	1	-	1
Grand Rapids, Mich.	27	21	3	-	2	1	3
Indianapolis, Ind.	133	90	30	9	3	1	4
Madison, Wis.§	35	23	7	3	1	1	4
Milwaukee, Wis.	97	73	18	3	1	2	5
Peoria, Ill.	31	25	3	-	1	2	4
Rockford, Ill.	49	38	9	2	-	-	3
South Bend, Ind.	41	27	8	4	2	-	4
Toledo, Ohio	73	58	11	1	1	2	2
Youngstown, Ohio	62	40	16	4	1	1	1
W.N. CENTRAL	758	520	143	52	22	21	31
Des Moines, Iowa§	56	43	11	2	-	-	3
Duluth, Minn.	17	14	2	1	-	-	-
Kansas City, Kans.	23	16	2	1	3	1	-
Kansas City, Mo.	131	88	25	10	3	5	7
Lincoln, Nebr.	27	22	4	-	-	1	1
Minneapolis, Minn.	184	133	30	11	4	6	5
Omaha, Nebr.	58	35	12	6	2	3	2
St. Louis, Mo.	148	90	34	17	4	3	6
St. Paul, Minn.	60	46	9	-	4	1	2
Wichita, Kans.	54	33	14	4	2	1	5
S. ATLANTIC	971	582	245	89	24	29	37
Atlanta, Ga.	95	65	22	5	2	1	2
Baltimore, Md.	164	81	51	19	5	8	10
Charlotte, N.C.	61	40	12	6	3	-	1
Jacksonville, Fla.	58	41	15	2	-	-	1
Miami, Fla.	86	55	19	8	2	2	2
Norfolk, Va.	52	37	13	2	-	-	1
Richmond, Va.	53	27	20	5	-	1	2
Savannah, Ga.	24	12	8	2	-	2	2
St. Petersburg, Fla.	86	67	12	6	1	-	4
Tampa, Fla.	42	20	9	7	2	2	3
Washington, D.C.	218	110	59	27	9	13	8
Wilmington, Del.	32	27	5	-	-	-	1
E.S. CENTRAL	635	392	155	48	21	19	25
Birmingham, Ala.	101	60	26	11	3	1	1
Chattanooga, Tenn.	39	26	10	2	-	1	2
Knoxville, Tenn.	77	47	17	6	3	4	2
Louisville, Ky.	122	78	31	8	3	2	8
Memphis, Tenn.	120	66	30	8	9	7	4
Mobile, Ala.	38	26	6	2	2	2	2
Montgomery, Ala.	29	22	5	2	-	-	1
Nashville, Tenn.	109	67	30	9	1	2	5
W.S. CENTRAL	968	563	242	98	33	32	32
Austin, Tex.	47	33	10	3	1	-	1
Baton Rouge, La.	17	8	6	1	2	-	-
Corpus Christi, Tex.	30	18	8	3	-	1	1
Dallas, Tex.	154	81	47	21	4	1	2
El Paso, Tex.	41	25	11	3	-	2	4
Fort Worth, Tex.	60	34	15	3	4	4	3
Houston, Tex.§	304	163	75	39	14	13	7
Little Rock, Ark.	51	33	10	4	2	2	4
New Orleans, La.	80	50	16	9	1	4	-
San Antonio, Tex.	131	83	30	11	3	4	9
Shreveport, La.	5	5	-	-	-	-	-
Tulsa, Okla.	48	30	14	1	2	1	1
MOUNTAIN	617	331	114	37	17	18	18
Albuquerque, N.Mex.	47	31	3	9	2	2	1
Colo. Springs, Colo.	31	21	2	2	3	3	1
Denver, Colo.	99	60	31	5	2	1	4
Las Vegas, Nev.	73	43	23	4	3	-	2
Ogden, Utah	17	10	5	-	1	1	-
Phoenix, Ariz.	126	78	28	10	4	6	5
Pueblo, Colo.	21	16	3	2	-	-	3
Salt Lake City, Utah	39	25	8	1	2	3	-
Tucson, Ariz.	64	47	11	4	-	2	2
PACIFIC	1,491	1,007	286	124	41	46	92
Berkeley, Calif.	13	10	2	-	-	1	1
Fresno, Calif.	63	48	7	4	2	2	4
Glendale, Calif.	22	17	4	1	-	-	1
Honolulu, Hawaii	49	27	14	4	2	2	8
Long Beach, Calif.	108	67	25	12	3	1	12
Los Angeles, Calif.	302	208	51	22	12	4	8
Oakland, Calif.§	59	42	10	4	2	1	2
Pasadena, Calif.	25	19	5	1	-	-	-
Portland, Oreg.	144	100	25	13	4	2	9
Sacramento, Calif.	97	66	17	7	3	4	11
San Diego, Calif.	114	71	24	12	2	4	6
San Francisco, Calif.	141	85	29	19	1	6	4
San Jose, Calif.	139	82	29	15	3	10	13
Seattle, Wash.	150	110	19	8	6	7	6
Spokane, Wash.	44	40	2	-	1	1	7
Tacoma, Wash.	21	15	3	2	-	1	-
TOTAL	10,444††	6,777	2,202	887	269	300	480

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*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza.

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§ Data not available. Figures are estimates based on average of past 4 weeks.

Tularemia — Continued

1944 (*2*). Although bloodsucking anthropod vectors have accounted for an increasing percentage of cases in more recent years, rabbits continue to be an important source of infection (*3*).

In the United States, wild rabbits of the genus *Sylvilagus* (cottontails, marsh rabbits, and swamp rabbits) present the greatest hazard (*2*). Jack rabbits and snowshoe hares are susceptible to tularemia but have rarely been implicated as direct sources of human infection. The domestic rabbit (*Oryctolagus cuniculus*) has not been documented as a source of human tularemia (*2*).

Exposure of the skin or conjunctiva to blood and other infectious tissue while skinning and dressing rabbits account for most cases. Ingestion of inadequately cooked meat has also been implicated. In some instances pulmonary tularemia has resulted from breathing aerosols generated while handling unopened rabbits or merely by poking at a dead rabbit with a stick (*4,5*). Indirect transmission from rabbits to humans may result from bites by pet animals or deerflies (*6,7*).

In 1939, the peak incidence year in the United States, 2,291 cases (17.5/1,000,000 population) were reported (*2*). Only 291 cases (1.2/1,000,000 population) were reported in 1984.

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Multiply Resistant Shigellosis in a Day-Care Center — Texas

Between October 10 and November 6, 1985, 15 children at a day-care center in Diboll, Texas, developed a diarrheal illness. *Shigella sonnei* was isolated from 10 ill children and from two of 19 asymptomatic children who were cultured on November 7. All isolates were colicin type 9, resistant to ampicillin, carbenicillin, streptomycin, cephalothin, and trimethoprim/sulfamethoxazole (TMP/SMX), and sensitive to tetracycline, nalidixic acid, chloramphenicol, and gentamicin. The attack rate was highest among the 12- to 22-month-old group. Family members of this group had the highest secondary attack rate (Table 1). No cases occurred among the 22 staff members. None of the children were hospitalized, but four of the five ill family members were.

The 89 children attending the center were cared for, by age group, in separate rooms. All groups except infants and toddlers had separate toilet and playground facilities. Infants and toddlers shared these facilities.

Shigellosis – Continued

Symptomatic children were excluded from the center until their diarrhea had resolved. Then they were permitted to return, without treatment or cultures, to their classrooms. Handwashing and hygiene were emphasized; contact between age groups was limited; and the routine policy excluding food preparers from child care, particularly diaper-changing, was reinforced. No further cases were reported at the center after November 7, when this strategy was implemented.

During the following month, statewide surveillance for TMP/SMX-resistant *S. sonnei* infections detected an outbreak among kindergarteners in a town 100 miles away. Although this outbreak strain had the same colicin type and antimicrobial resistance profile as the Diboll strain, its plasmid content differed, and no direct connection between the two outbreaks was discovered.

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Editorial Note:Shigellosis in day-care centers can be difficult to control. Basic hygiene, exclusion of symptomatic persons, and routine antimicrobial therapy for all infected persons have been advocated as control measures (*1*). In the Texas outbreak reported here, antimicrobial therapy was not part of the control strategy because the strain was resistant to all drugs commonly used to treat shigellosis in children. Nonetheless, the straightforward control strategy in this well-designed day-care center was associated with the end of the outbreak, even though untreated convalescent children returned to the center and untreated asymptomatic carrier children remained there.

The elements contributing to this apparent success included vigorous emphasis on handwashing among staff and children; routine exclusion of ill children; separate areas and staff for diapering and food-preparation; and separate rooms, toilets, and play-facilities for different age groups. There is some evidence that each element is important. Handwashing has been shown to reduce the incidence of diarrheal illness in day-care centers (*2*). In day-care centers in Houston, Texas, the incidence of diarrheal illness was significantly associated with the proportion of staff who changed diapers and also served or prepared food (*3*). The usefulness of separating children by age was suggested by uniform shigellosis attack rates observed across ages 0 to 5 years at a day-care center where the children were grouped together (*4*). Additional study of the efficacy and utility of these specific control measures is needed (*5,6*).

Providing day-care in isolation for convalescent children may limit the spread of shigellosis in the community. In one outbreak, in which children with shigellosis were rigidly excluded from a day-care center until negative cultures were obtained, the outbreak strain spread to a day-care center in an adjacent county (*7*). In another outbreak, at a center where isolation of

TABLE 1. Attack rates of shigellosis, by room assignment, among children <5 years old attending a day-care center and their family members — Diboll, Texas, 1985.

Room assignment	Cases/Children	Attack rate (%)	Cases/Family members	Attack rate (%)
Infant	1/8	12	0/20	0
Toddler	6/10	60	4/31	13
Two-year-old	3/15	20	1/40	2
Three-year-old	4/10	40	0/29	0
Four-year-old	1/15	7	0/47	0
Total	**15/58**	**26**	**5/167**	**3**

Shigellosis — Continued

convalescent children was possible, treated, convalescent children without negative cultures were allowed to return to the day-care center, and there was no further spread of illness in either the center or the community (*8*). Further evaluation of convalescent day-care, with and without isolation, is needed before specific recommendations can be made.

To help day-care center directors, employees, and parents work with health departments to control disease in day-care centers, CDC has produced a training kit: "What To Do To Stop Disease in Child Day-Care Centers". This kit has been distributed to state health departments and licensing boards for distribution to licensed day-care centers. It also can be purchased for $4.00 from the Government Printing Office, Superintendent of Documents, Washington, D.C., 20402. The GPO Stock Number is 017-023-00172-8.

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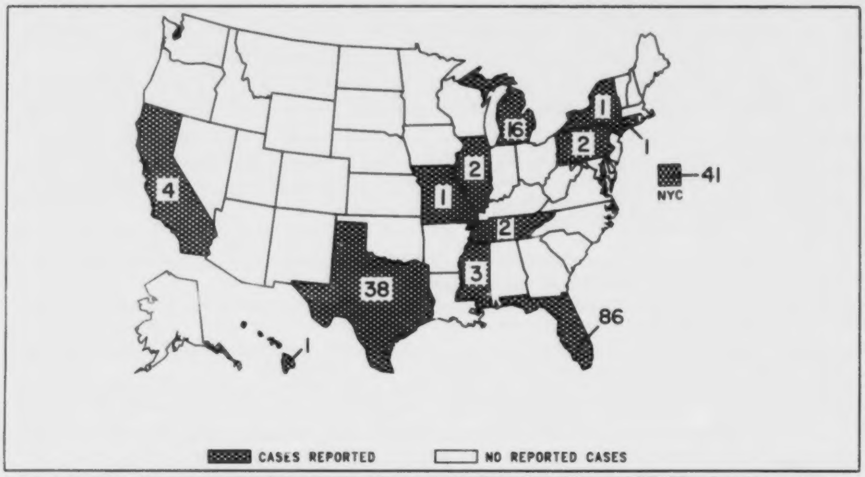
Erratum: Vol. 35, No. 46

p. 714 The following reference replaces reference number 5 for the article entitled "Premature Mortality from Diabetes Mellitus—Use of Sentinel Health Event Surveillance to Assess Causes":

5. Tunbridge WM. Factors contributing to deaths of diabetics under fifty years of age. On behalf of the Medical Services Study Group and British Diabetic Association. Lancet 1981;2:569-72.

FIGURE I. Reported measles cases — United States, weeks 44-47, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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CENTERS FOR DISEASE CONTROL

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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757 Update: Acquired Immunodeficiency Syndrome—United States
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Current Trends

Update: Acquired Immunodeficiency Syndrome—United States

As of December 8, 1986, physicians and health departments in the United States had reported 28,098 patients (27,704 adults and 394 children) meeting the acquired immunodeficiency syndrome (AIDS) case definition for national reporting (*1-3*). Of these patients, 15,757 (56% of adults and 61% of children) are known to have died, including over 79% of those patients diagnosed before January 1985. Since the initial reports of AIDS in early 1981 (*4-5*), the number of cases reported for each 6-month period continues to increase. However, the increases are not exponential, as evidenced by the lengthening period of time required to double the number of cases (Table 1). During the past 3 months, an average of 58 AIDS cases have been reported to CDC daily. This compares with 35 cases reported during the same period in 1985, 20 cases in 1984, and 10 cases in 1983. Cases have been reported from all 50 states, the District of Columbia, and four U.S. Territories.

Adult patients. Among adult AIDS patients, 25,834 (93%) are men. There has been no significant change over time in distribution of male patients by age and race. Ninety percent of men with AIDS are 20 to 49 years of age (mean = 36.8 years); 63% are white; 22%, black, 14%, Hispanic; and 1%, other or unknown race/ethnicity.

Pneumocystis carinii pneumonia (PCP) continues to be the most common opportunistic disease reported among AIDS patients. Sixty-four percent of men had PCP; 21% had other opportunistic diseases without PCP; and 15% had Kaposi's sarcoma (KS) alone. Ninety-five percent of patients with KS have been homosexual or bisexual men.

TABLE 1. Acquired immunodeficiency syndrome cases, by date of report and doubling time—United States, through December 8, 1986

Cumulative cases reported	Date*	Doubling time* (months)
110	September 1981	-
220	January 1982	5
439	June 1982	6
878	December 1982	6
1,756	July 1983	7
3,512	February 1984	8
7,025	December 1984	9
14,049	October 1985	11
28,098	December 1986	13

*Doubling time was calculated in days but is reported here to nearest month.

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AIDS – Continued

Women with AIDS have been reported from 41 states, the District of Columbia, and three territories. The number of cases varies greatly by reporting area and ranges from one to 877 (median = 6); seventy-two percent of female cases were reported from Florida, New Jersey, and New York (42% of male cases were reported from these three states). Eighty-eight percent of women reported with AIDS are 20 to 49 years of age (mean = 34.9 years); 27% are white; 52%, black; 20%, Hispanic; and 1%, other or unknown race/ethnicity. Sixty-seven percent of women had PCP, 31% had other opportunistic diseases without PCP, and 2% had KS alone.

Ninety-seven percent of all adult AIDS patients can be placed in groups* that suggest a possible means of disease acquisition. Homosexual or bisexual men who are not known to have used intravenous (IV) drugs represent 66% of all reported cases (70% of male cases). Heterosexual IV drug users comprise 17% of all cases (15% of male cases and 51% of female cases). Homosexual or bisexual men who have used IV drugs comprise 8% of all cases (8% of males). Persons with hemophilia/coagulation disorders represent 1% of all cases (1% of males; 0.4% of females). Heterosexual sex partners of persons with AIDS or at risk for AIDS represent 4% of all cases (2% of males and 27% of females). This latter category includes persons without other identified risks who were born in countries in which heterosexual transmission is believed to play a major role. Recipients of transfused blood or blood components account for 2% of all cases (1% of males and 10% of females). For 3% of AIDS patients (3% of males and 11% of females), the possible means of disease acquisition is undetermined. Except for women with a coagulation disorder, the number of AIDS cases reported per year continues to increase in all patient groups (Table 2).

AIDS patients reported as not belonging to recognized risk groups are investigated by local health officials to determine if possible risk factors exist. Of all AIDS patients reported to CDC who were initially identified as not belonging to a risk group and who were available for followup, 72% have been reclassified because risk factors were identified or because the patient was found not to meet the surveillance case definition. Of the 853 AIDS patients currently listed as not belonging to recognized risk groups, information is incomplete on 206 due to: death (158), refusal to be interviewed (34), or loss to followup (14). Of the remaining 647 patients, 458 are currently under investigation. No risk was identified for 189 patients who were interviewed or for whom other followup information was obtained. However, of those patients responding to a standardized questionnaire, 40/125 (32%) gave histories of gonorrhea and/or syphilis, and 19 of the 70 men (27%) gave a history of prostitute contact, indicating that these AIDS patients were at potential risk for other sexually-transmitted infections.

The availability of laboratory tests to detect human T-cell lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV)† antibody made it possible to increase the sensitivity and specificity of the AIDS case definition used for national reporting (*3*). Of the AIDS case reports submitted to CDC, HTLV-III/LAV antibody test results were included for 6,897 (24.5%) of patients (6,558 with recognized risk factors and 339 for whom no risk has been identified). Eighty-nine (1.4%) of the tested patients with recognized risk factors, compared with 27 (8%) of those without identified risk factors were reported negative for HTLV-III/LAV antibody ($p < 0.001$).

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*Patient groups are hierarchically ordered; patients with multiple risk factors are tabulated only in the group listed first.

†The AIDS virus has been variously termed human T-lymphotropic virus type III (HTLV-III/LAV), lymphadenopathy-associated virus (LAV), AIDS-associated retrovirus (ARV), or human immunodeficiency virus (HIV). The designation "human immunodeficiency virus" (HIV) has been accepted by a subcommittee of the International Committee for the Taxonomy of Viruses as the appropriate name for the retrovirus that has been implicated as the causative agent of AIDS (Science 1986;232:697).

AIDS – Continued

TABLE 2. Acquired immunodeficiency syndrome (AIDS) cases reported, by transmission category, by year, and with percentage of yearly increases — United States, through December 8, 1986

Transmission category	Before 12/8/82	12/9/82-12/8/83		12/9/83-12/8/84		12/9/84-12/8/85		12/9/85-12/8/86		Total
	No.	No.	(% Inc)[*]	No.	(% Inc)[*]	No.	(% Inc)[*]	No.	(% Inc)[*]	
Adult male										
Homosexual/bisexual only	562	1,252	(123)	2,720	(117)	5,306	(95)	8,322	(57)	18,162
IV drug user only	98	295	(201)	561	(90)	1,132	(102)	1,674	(48)	3,760
Both homosexual/IV drug user	74	194	(162)	396	(104)	576	(45)	925	(61)	2,165
Hemophilia/coagulation disorder	6	11	(83)	31	(182)	66	(113)	119	(80)	233
Other heterosexual contact										
Sexual contact	1	1	(0)	10	(900)	20	(100)	49	(145)	81
Non-U.S. born[†]	40	68	(70)	96	(41)	111	(16)	146	(32)	461
Transfusion	1	14	(1300)	28	(100)	96	(243)	185	(93)	324
Undetermined	16	51	(219)	81	(59)	158	(95)	342	(116)	648
Male subtotal	**798**	**1,886**	**(136)**	**3,923**	**(108)**	**7,465**	**(90)**	**11,762**	**(58)**	**25,834**
Adult female										
IV drug user only	26	79	(204)	152	(92)	276	(82)	430	(56)	963
Hemophilia/coagulation disorder	0	0	—	2	—	2	(0)	3	(50)	7
Other heterosexual contact										
Sexual contact	7	20	(186)	47	(135)	100	(113)	230	(130)	404
Non-U.S. born[†]	9	12	(33)	13	(8)	31	(138)	45	(45)	110
Transfusion	2	12	(500)	20	(67)	57	(185)	90	(58)	181
Undetermined	7	17	(143)	24	(41)	65	(171)	92	(42)	205
Female subtotal	**51**	**140**	**(175)**	**258**	**(84)**	**531**	**(106)**	**890**	**(68)**	**1,870**
Adult subtotal	**849**	**2,026**	**(139)**	**4,181**	**(106)**	**7,996**	**(91)**	**12,652**	**(58)**	**27,704**
Pediatric	1	41	(4,000)	50	(22)	124	(148)	178	(44)	394
Total	**850**	**2,067**	**(143)**	**4,231**	**(105)**	**8,120**	**(92)**	**12,830**	**(58)**	**28,098**

[*] Percent increase.

[†] Includes persons without other identified risks who were born in countries in which heterosexual transmission is believed to play a major role although precise means of transmission have not yet been fully defined.

AIDS – Continued

Pediatric patients. Among 394 AIDS patients < 13 years of age, 347 (88%) are < 5 years old. Of those, 20% are white; 57%, black; and 22%, Hispanic. Fifty-five percent are male. Fifty-two percent were diagnosed with PCP, 47% with other opportunistic diseases and no PCP, and 1% with KS alone. Three hundred and eleven (79%) pediatric patients came from families in which one or both parents had AIDS or were at increased risk for developing AIDS; 22 (6%) had hemophilia and 51 (13%) had received transfusions of blood or blood components before onset of illness. Risk factor information on the parents of the 10 (3%) remaining cases is incomplete. Pediatric patients have been reported from 29 states, the District of Columbia, and Puerto Rico; reported cases per area ranged from one to 141 (median = 4). Over 72% of the 311 pediatric patients who acquired infection perinatally are residents of Florida, New Jersey, and New York.

Other modes of transmission. There continues to be no evidence of nonspecific transmission through casual contact; insect bites; or foodborne, waterborne, or environmental spread among AIDS cases. The situation is most clear in the 5- to 15-year-old age group, which lies between the youngest children for whom perinatal transmission is the most important and the adult age groups where sexual and drug related transmission predominates. Five to 15 year olds, who include the majority of school children, comprise 16% of the U.S. population (*6*). However, only 62 AIDS cases (0.2% of total cases) have occurred in this large group, which is

(Continued on page 765)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease		49th Week Ending			Cumulative, 49th Week Ending		
		Dec 6, 1986	Dec 7, 1985	Median 1981-1985	Dec 6, 1986	Dec 7, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)		61	215	N	11,990	7,476	N
Aseptic meningitis		280	189	180	10,028	9,820	9,170
Encephalitis:	Primary (arthropod-borne & unspec.)	29	15	24	1.151	1,235	1.454
	Post-infectious	1	2	2	94	114	87
Gonorrhea:	Civilian	15.838	17.146	18.805	834,596	836,455	850,539
	Military	227	248	481	15,779	19,594	22,726
Hepatitis:	Type A	500	530	530	21,269	21,629	21,629
	Type B	501	516	535	24.009	24,675	22.559
	Non A, Non B	74	76	N	3,270	3,840	N
	Unspecified	92	115	144	4.168	5.412	6.830
Legionellosis		21	12	N	755	725	N
Leprosy		5	3	5	233	345	226
Malaria		13	22	19	1,042	973	973
Measles:	Total*	40	13	14	5.965	2,717	2,530
	Indigenous	40	11	N	5,667	2,283	N
	Imported	-	2	N	292	434	N
Meningococcal infections:	Total	49	64	56	2,280	2,254	2,564
	Civilian	49	64	56	2,278	2,247	2,549
	Military	-	-	-	2	7	13
Mumps		274	60	60	5,170	2,769	3,098
Pertussis		57	69	29	4.006	3,344	2,179
Rubella (German measles)		3	-	12	480	601	926
Syphilis (Primary & Secondary):	Civilian	462	428	600	25,442	25,245	29,271
	Military	1	1	4	147	151	355
Toxic Shock syndrome		11	4	N	329	349	N
Tuberculosis		527	493	521	20.623	20,112	22.062
Tularemia		4	2	4	154	172	264
Typhoid fever		3	12	12	292	366	375
Typhus fever, tick-borne (RMSF)		3	8	5	738	683	954
Rabies, animal		52	114	93	5.059	5,096	5,670

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-		
Botulism: Foodborne	18	Leptospirosis (Ky 1)	38
Infant	64	Plague	8
Other	1	Poliomyelitis, Paralytic	1
Brucellosis (Fla 1)	78	Psittacosis	88
Cholera (Ga 1)	17	Rabies, human	-
Congenital rubella syndrome	10	Tetanus (La 1)	60
Congenital syphilis, ages < 1 year	107	Trichinosis	31
Diphtheria	-	Typhus fever, flea-borne (endemic, murine) (Tex 1)	47

* There were no cases of internationally imported measles reported for this week.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending December 6, 1986 and December 7, 1985 (49th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	11,990	260	1,151	94	834,596	836,455	500	501	74	92	21	233
NEW ENGLAND	469	7	29	3	22,430	21,397	9	49	4	9	-	8
Maine	20	-	2	-	800	1,086	-	1	-	-	-	-
N.H.	13	-	2	-	537	531	-	-	-	-	-	-
Vt.	5	1	4	2	252	320	2	-	-	-	-	-
Mass.	252	5	5	-	8,124	8,918	6	35	3	8	-	8
R.I.	31	1	-	-	1,768	1,769	1	1	-	-	-	-
Conn.	148	-	16	1	10,949	8,773	-	12	1	1	-	-
MID ATLANTIC	4,394	22	107	10	146,027	121,320	24	52	6	10	-	19
Upstate N.Y.	469	11	36	6	17,635	17,007	5	17	1	-	-	1
N.Y. City	2,995	1	20	1	84,374	59,095	-	2	-	7	-	17
N.J.	662	4	10	-	18,716	18,360	7	16	-	2	-	-
Pa.	268	6	41	3	25,302	26,858	12	17	5	1	-	1
E.N. CENTRAL	718	42	350	11	108,053	109,065	20	39	6	2	6	4
Ohio	154	16	135	3	27,531	29,629	6	10	3	-	4	-
Ind.	59	6	81	3	12,010	12,186	3	3	-	2	-	-
Ill.	341	3	50	4	25,465	25,293	1	3	-	-	-	4
Mich.	126	17	56	1	35,480	31,466	10	23	3	-	2	1
Wis.	38	-	28	-	7,315	10,491	-	-	-	-	-	-
W.N. CENTRAL	230	19	88	10	36,008	39,325	11	13	2	-	2	4
Minn.	88	12	39	-	5,172	5,778	4	3	-	-	-	2
Iowa	19	2	27	-	3,674	4,173	3	2	-	-	1	-
Mo.	73	4	3	-	17,777	19,104	2	7	1	-	-	-
N. Dak.	3	-	4	1	290	267	-	-	-	-	-	-
S. Dak.	2	-	11	-	732	747	1	1	-	-	-	-
Nebr.	11	-	1	1	2,682	3,339	-	-	-	-	1	-
Kans.	34	1	3	8	5,681	5,921	1	-	1	-	-	2
S. ATLANTIC	1,719	26	147	37	216,166	218,349	31	112	10	2	5	3
Del.	22	2	6	-	3,534	4,237	1	3	-	-	1	-
Md.	180	3	33	1	25,752	27,886	7	28	1	-	2	-
D.C.	215	1	1	1	16,235	14,912	-	3	-	-	-	-
Va.	150	2	40	1	17,894	18,118	-	2	-	-	-	1
W. Va.	8	1	45	-	2,085	2,452	-	1	-	-	-	-
N.C.	74	-	18	2	33,717	34,465	6	14	1	-	2	-
S.C.	48	1	-	-	18,399	20,528	1	7	-	-	-	-
Ga.	262	4	-	1	35,977	42,386	6	25	2	1	-	-
Fla.	760	12	4	31	62,573	53,365	10	29	6	1	-	2
E.S. CENTRAL	147	33	63	4	66,555	72,488	-	21	5	3	-	1
Ky.	28	6	30	1	7,396	8,337	-	5	2	-	-	-
Tenn.	70	5	8	1	25,069	27,787	-	7	2	3	-	-
Ala.	25	21	24	2	19,511	21,702	-	8	1	-	-	1
Miss.	24	1	1	-	14,579	14,662	-	1	-	-	-	-
W.S. CENTRAL	1,053	54	182	6	97,663	104,819	51	43	6	21	2	24
Ark.	29	2	-	2	9,171	9,882	3	2	1	-	-	1
La.	147	2	16	-	16,970	19,712	8	14	1	2	-	1
Okla.	41	13	21	-	11,120	11,731	3	4	1	-	2	-
Tex.	836	37	145	4	60,402	63,494	37	23	3	19	-	22
MOUNTAIN	320	4	39	1	24,625	26,627	76	37	5	8	3	13
Mont.	4	-	1	1	641	761	-	-	1	-	-	-
Idaho	3	-	-	-	820	931	6	1	1	-	-	-
Wyo.	4	-	2	-	510	601	-	-	-	-	-	-
Colo.	154	1	5	-	6,320	7,715	4	-	1	3	-	3
N. Mex.	23	-	3	-	2,613	2,932	30	6	1	1	1	-
Ariz.	79	3	18	-	7,949	8,129	24	22	-	4	1	7
Utah	18	-	8	-	1,045	1,281	7	3	1	-	1	1
Nev.	35	-	2	-	4,727	4,277	5	5	-	-	-	2
PACIFIC	2,940	53	146	12	117,069	123,061	278	135	30	37	3	157
Wash.	153	13	13	-	8,484	9,505	66	37	3	18	-	17
Oreg.	59	-	-	-	5,123	6,041	32	10	4	-	-	-
Calif.	2,666	32	125	12	100,028	102,956	180	81	23	19	3	105
Alaska	12	2	7	-	2,478	2,965	-	4	-	-	-	-
Hawaii	50	6	1	-	1,208	1,594	-	3	-	-	-	34
Guam		-	-	-	207	186	-	-	-	-	-	1
P.R.	115	1	5	1	2,293	2,967	3	12	-	2	-	7
V.I.	4	-	-	-	308	382	-	1	-	-	-	-
Pac. Trust Terr.	-	-	-	-	451	766	2	-	-	1	-	63
Amer. Samoa	-	-	-	-	56		-	-	-	-	-	3

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 6, 1986 and December 7, 1985 (49th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum. 1986	1986	Cum. 1986	1986	Cum. 1986	Cum. 1985	Cum. 1986	1986	Cum. 1986	1986	Cum. 1986	Cum. 1985	1986	Cum. 1986	Cum. 1985
UNITED STATES	1,042	40	5,667	-	292	2,717	2,280	274	5,170	57	4,006	3,344	3	480	601
NEW ENGLAND	63	-	88	-	16	126	160	3	66	14	173	206	-	9	13
Maine	2	-	12	-	1	1	27	-	-	-	2	9	-	-	-
N.H.	4	-	43	-	-	-	6	-	14	-	82	112	-	1	3
Vt.	2	-	-	-	-	-	19	-	4	-	3	3	-	1	-
Mass.	32	-	24	-	13	118	46	-	14	14	56	49	-	4	6
R.I.	7	-	2	-	-	-	21	2	13	-	6	22	-	2	-
Conn.	16	-	7	-	2	7	41	1	23	-	24	11	-	1	4
MID. ATLANTIC	145	2	1,731	-	34	232	363	3	206	2	204	247	-	37	228
Upstate N.Y.	51	-	77	-	24	85	126	2	68	1	126	119	-	27	18
N.Y. City	31	-	723	-	4	79	71	-	29	-	10	29	-	5	185
N.J.	37	-	90§	-	4	28	30	-	51	-	20	11	-	5	11
Pa.	26	2	26	-	2	40	136	1	59	1	48	88	-	-	14
E.N. CENTRAL	61	32	1,120	-	28	582	340	182	3,373	2	383	807	-	49	38
Ohio	19	-	-	-	10	60	137	3	135	-	167	117	-	1	-
Ind.	2	-	27	-	11	57	38	3	43	1	36	201	-	-	1
Ill.	16	1	703	-	4	346	74	124	2,536	-	36	75	-	38	20
Mich.	20	31	106	-	-	60	73	52	391	1	36	48	-	8	16
Wis.	4	-	284	-	3	59	17	-	268	-	105	366	-	2	1
W.N. CENTRAL	30	-	324	-	17	12	109	10	171	2	1,408	247	-	14	19
Minn.	8	-	45	-	4	6	23	2	20	-	48	126	-	1	2
Iowa	1	-	133	-	1	-	11	5	62	-	19	33	-	1	1
Mo.	12	-	26	-	6	3	39	1	25	2	24	33	-	1	7
N. Dak.	-	-	25	-	1	2	1	-	4	-	5	10	-	1	2
S. Dak.	2	-	-	-	-	-	5	-	1	-	14	5	-	-	-
Nebr.	4	-	1	-	-	-	11	2	2	-	10	11	-	-	-
Kans.	3	-	94	-	5	1	19	-	57	-	1,288	29	-	10	7
S. ATLANTIC	124	-	775	-	56	340	407	5	247	14	763	549	1	12	52
Del.	1	-	1	-	-	-	5	-	1	-	227	2	-	-	2
Md.	14	-	28	-	9	115	47	3	29	-	164	317	1	1	6
D.C.	6	-	-	-	1	31	5	-	1	-	-	-	-	-	-
Va.	33	-	36	-	24	28	71	1	45	9	50	20	-	-	2
W. Va.	4	-	2	-	-	33	4	1	49	-	26	4	-	-	9
N.C.	7	-	3	-	1	9	63	-	28	3	82	35	-	-	1
S.C.	6	-	274	-	-	3	45	-	15	-	18	2	-	-	3
Ga.	13	-	79	-	14	8	58	-	28	1	133	98	-	-	-
Fla.	40	-	354	-	7	113	109	-	51	1	63	71	-	11	29
E.S. CENTRAL	21	-	63	-	9	7	115	60	224	-	47	69	-	4	3
Ky.	6	-	-	-	6	5	26	-	6	-	5	8	-	4	3
Tenn.	1	-	57	-	1	1	37	60	213	-	16	27	-	-	-
Ala.	10	-	1	-	1	-	38	-	4	-	25	27	-	-	-
Miss.	4	-	5	-	1	1	14	-	1	-	1	7	-	-	-
W.S. CENTRAL	106	-	680	-	38	452	214	4	272	2	252	548	-	71	42
Ark.	1	-	276	-	2	-	30	-	61	-	20	14	-	1	1
La.	18	-	4	-	-	42	26	-	3	-	15	17	-	-	-
Okla.	12	-	37	-	2	1	31	N	N	2	128	166	-	-	2
Tex.	75	-	363	-	34	409	127	4	208	-	89	351	-	70	39
MOUNTAIN	39	-	303	-	29	541	106	4	252	5	278	224	-	24	6
Mont.	1	-	-	-	8	137	10	-	6	-	20	10	-	2	-
Idaho	1	-	1	-	-	137	4	1	9	3	49	19	-	-	2
Wyo.	-	-	-	-	-	5	2	-	-	-	4	1	-	1	-
Colo.	12	-	2	-	8	15	20	-	17	-	66	88	-	1	-
N. Mex.	5	-	33	-	7	6	12	N	N	2	28	13	-	-	2
Ariz.	13	-	252	-	6	241	22	2	195	-	65	40	-	2	1
Utah	4	-	13	-	-	-	10	-	15	-	42	53	-	16	-
Nev.	3	-	2	-	-	-	26	1	10	-	4	-	-	3	1
PACIFIC	453	6	583	-	65	425	466	3	357	16	498	447	2	260	200
Wash.	32	-	140	-	28	142	63	1	19	2	151	85	-	17	14
Oreg.	19	-	7	-	4	5	36	N	N	2	16	50	-	4	2
Calif.	401	6	409	-	31	254	341	1	306	1	298	265	2	233	135
Alaska	-	-	-	-	-	-	14	-	8	-	5	30	-	-	1
Hawaii	1	-	27	-	2	24	13	1	24	11	31	17	-	6	48
Guam	1	-	4	-	1	11	1	-	4	-	-	-	-	4	3
P.R.	4	-	36	-	-	67	4	1	34	-	19	16	-	62	27
V.I.	-	-	-	-	-	10	-	-	17	-	-	-	-	-	-
Pac. Trust Terr.	-	-	-	-	-	-	1	-	11	-	-	-	1	3	-
Amer. Samoa	-	-	2	-	-	-	-	-	5	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 6, 1986 and December 7, 1985 (49th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic shock Syndrome	Tuberculosis		Tularemia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	25,442	25,245	11	20,623	20,112	154	292	738	5,059
NEW ENGLAND	464	556	1	635	673	1	16	13	8
Maine	19	16	-	34	45	-	-	-	-
N.H.	10	38	-	23	22	-	-	2	1
Vt.	9	7	-	16	8	-	-	-	2
Mass.	253	275	1	353	397	1	13	4	-
R.I.	19	17	-	42	50	-	-	3	3
Conn.	154	203	-	167	151	-	3	4	2
MID ATLANTIC	3,567	3,411	-	4,049	3,558	1	24	40	641
Upstate N.Y.	172	252	-	590	609	-	4	20	81
N.Y. City	2,017	2,066	-	2,113	1,749	-	11	5	-
N.J.	618	653	-	688	479	1	8	2	17
Pa.	760	440	-	658	721	-	1	13	543
E.N. CENTRAL	812	928	1	2,440	2,459	1	23	46	137
Ohio	117	140	1	431	426	-	9	40	16
Ind.	108	78	-	262	318	-	2	-	17
Ill.	370	414	-	1,060	1,073	-	3	2	39
Mich.	177	236	-	580	505	1	6	4	25
Wis.	40	60	-	107	137	-	3	-	40
W.N. CENTRAL	198	220	-	608	573	41	9	48	796
Minn.	31	44	-	144	119	-	2	1	131
Iowa	8	18	-	48	56	1	-	1	180
Mo.	104	121	-	296	277	30	6	24	68
N. Dak.	5	2	-	10	10	-	-	1	150
S. Dak.	9	6	-	28	31	3	-	6	178
Nebr.	11	7	-	14	18	1	-	5	35
Kans.	30	22	-	66	62	6	1	10	54
S. ATLANTIC	7,727	7,227	-	4,154	4,162	13	46	331	1,272
Del.	55	36	-	42	42	-	1	1	1
Md.	435	476	-	283	379	2	16	29	559
D.C.	287	318	-	152	146	1	4	-	31
Va.	320	286	-	356	416	3	10	51	192
W. Va.	20	26	-	115	105	-	3	10	56
N.C.	502	640	-	624	554	3	4	128	10
S.C.	656	768	-	527	497	-	-	71	64
Ga.	1,420	1,315	-	700	712	4	-	39	196
Fla.	4,032	3,362	-	1,349	1,311	-	8	2	163
E.S. CENTRAL	1,688	1,963	1	1,836	1,740	15	4	111	357
Ky.	65	65	-	415	428	7	-	22	102
Tenn.	595	606	-	537	526	6	1	46	138
Ala.	486	627	1	567	507	1	1	25	114
Miss.	542	665	-	317	280	1	2	18	3
W.S. CENTRAL	4,945	5,840	5	2,661	2,556	67	30	138	691
Ark.	243	314	-	363	299	49	-	16	158
La.	877	1,023	-	393	369	1	1	1	22
Okla.	137	180	5	238	236	12	2	103	58
Tex.	3,688	4,323	-	1,667	1,652	5	27	18	453
MOUNTAIN	588	731	2	501	542	12	16	10	634
Mont.	7	6	1	31	46	1	1	4	204
Idaho	14	7	-	23	25	-	-	2	9
Wyo.	4	14	-	-	7	1	-	1	269
Colo.	131	206	-	55	85	3	1	3	29
N. Mex.	68	120	-	94	83	2	1	-	6
Ariz.	239	307	-	230	239	-	9	-	99
Utah	18	11	1	31	21	4	3	-	7
Nev.	107	60	-	37	36	1	1	-	11
PACIFIC	5,453	4,369	1	3,741	3,849	3	124	1	523
Wash.	152	103	-	203	208	1	3	-	5
Oreg.	110	103	-	119	128	-	-	-	1
Calif.	5,145	4,092	1	3,204	3,237	1	114	1	509
Alaska	11	4	-	46	95	1	1	-	8
Hawaii	35	67	-	169	181	-	6	-	-
Guam	1	2	-	35	38	-	1	-	-
P.R.	819	833	-	310	333	-	5	-	46
V.I.	1	3	-	1	1	-	-	-	-
Pac. Trust Terr.	246	128	-	89	75	-	49	-	-
Amer. Samoa	1	-	-	5	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending December 6, 1986 (49th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	824	566	165	50	22	21	64
Boston, Mass	207	129	49	15	6	8	24
Bridgeport, Conn	68	44	14	6	3	1	6
Cambridge, Mass	30	21	7	2	-	-	2
Fall River, Mass	43	29	12	1	1	-	-
Hartford, Conn	76	46	19	7	2	2	3
Lowell, Mass	36	27	9	-	-	-	2
Lynn, Mass	27	23	3	1	-	-	2
New Bedford, Mass	42	32	7	2	-	1	1
New Haven, Conn	49	33	10	3	2	1	4
Providence, R.I.	74	54	12	2	1	5	6
Somerville, Mass	10	8	1	1	-	-	-
Springfield, Mass	57	43	6	3	5	-	2
Waterbury, Conn	41	28	8	4	1	-	5
Worcester, Mass	64	49	8	3	1	3	7
MID ATLANTIC	3,096	2,009	617	308	71	89	154
Albany, N.Y.	63	45	10	4	2	2	1
Allentown, Pa	21	13	7	1	-	-	-
Buffalo, N.Y.	175	124	31	9	2	9	14
Camden, N.J.	57	41	8	5	2	1	1
Elizabeth, N.J.	42	29	7	6	-	-	2
Erie, Pa †	49	39	9	-	1	-	2
Jersey City, N.J.	53	37	12	3	-	1	-
N.Y. City, N.Y.	1,613	999	329	197	47	41	68
Newark, N.J.	98	45	21	23	3	5	3
Paterson, N.J.	31	22	6	3	-	-	4
Philadelphia, Pa	418	264	92	31	11	20	20
Pittsburgh, Pa †	82	58	18	2	1	3	9
Reading, Pa	22	18	2	1	1	-	2
Rochester, N.Y.	123	93	21	6	-	3	14
Schenectady, N.Y.	33	24	7	2	-	-	-
Scranton, Pa †	32	23	8	1	-	-	-
Syracuse, N.Y.	92	70	15	4	1	2	6
Trenton, N.J.	35	20	7	7	-	1	2
Utica, N.Y.	28	24	3	1	-	-	1
Yonkers, N.Y.	29	21	4	2	-	1	5
E.N. CENTRAL	2,653	1,750	581	182	72	68	107
Akron, Ohio	97	66	19	7	1	4	-
Canton, Ohio	42	14	15	12	1	-	3
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	130	76	37	10	7	-	10
Cleveland, Ohio	165	102	44	12	4	3	1
Columbus, Ohio	130	80	33	10	1	6	-
Dayton, Ohio	161	114	31	8	6	2	5
Detroit, Mich	369	229	83	36	15	6	9
Evansville, Ind	59	44	10	3	1	1	2
Fort Wayne, Ind	95	68	20	3	2	2	7
Gary, Ind	11	6	4	1	-	-	-
Grand Rapids, Mich	66	48	12	3	1	2	6
Indianapolis, Ind	200	122	60	2	8	8	10
Madison, Wis	47	32	9	2	2	2	10
Milwaukee, Wis	169	123	32	10	2	2	6
Peoria, Ill	58	48	6	1	-	3	5
Rockford, Ill	53	33	8	4	6	2	3
South Bend, Ind	64	55	6	2	1	-	4
Toledo, Ohio	110	75	20	9	3	3	10
Youngstown, Ohio	63	53	7	2	1	-	-
W.N. CENTRAL	945	676	173	45	20	31	56
Des Moines, Iowa	75	59	10	3	2	1	5
Duluth, Minn	30	18	8	1	-	3	1
Kansas City, Kans	51	37	6	2	3	3	1
Kansas City, Mo	102	70	21	6	1	4	9
Lincoln, Nebr	29	21	6	-	1	1	-
Minneapolis, Minn	215	156	35	10	7	7	16
Omaha, Nebr	115	84	21	7	1	2	10
St. Louis, Mo	154	107	32	7	4	4	7
St. Paul, Minn	67	53	9	4	-	1	3
Wichita, Kans	107	71	25	5	1	5	4
S. ATLANTIC	1,490	895	342	153	46	53	58
Atlanta, Ga §	132	86	31	10	4	1	3
Baltimore, Md	288	171	64	21	13	19	10
Charlotte, N.C.	92	66	12	9	1	4	7
Jacksonville, Fla	150	88	43	14	3	2	9
Miami, Fla	95	54	25	13	2	1	1
Norfolk, Va	72	44	7	13	2	6	2
Richmond, Va	93	52	26	9	3	3	8
Savannah, Ga	47	22	14	6	1	4	2
St. Petersburg, Fla	143	120	17	3	3	-	4
Tampa, Fla	75	44	21	7	-	2	5
Washington, D.C.	288	133	82	48	14	11	6
Wilmington, Del	15	15	-	-	-	-	1
E.S. CENTRAL	874	561	217	55	17	24	45
Birmingham, Ala	108	68	31	6	1	2	3
Chattanooga, Tenn	55	33	19	2	1	-	1
Knoxville, Tenn	67	44	13	5	3	2	10
Louisville, Ky	93	65	19	5	-	4	3
Memphis, Tenn	291	187	71	21	6	6	20
Mobile, Ala	71	46	18	4	2	1	3
Montgomery, Ala	45	27	11	2	-	5	2
Nashville, Tenn	144	91	35	10	4	4	3
W.S. CENTRAL	1,490	931	306	141	44	68	50
Austin, Tex	72	43	16	8	5	-	5
Baton Rouge, La	54	35	9	6	1	3	3
Corpus Christi, Tex	59	40	9	6	2	2	1
Dallas, Tex	238	136	45	24	10	23	7
El Paso, Tex	74	54	12	6	2	-	6
Fort Worth, Tex	96	65	24	6	1	-	-
Houston, Tex	317	183	72	45	3	14	6
Little Rock, Ark	77	46	19	7	2	3	3
New Orleans, La	147	87	30	10	5	15	1
San Antonio, Tex	191	118	43	14	11	5	12
Shreveport, La	50	39	5	3	1	2	1
Tulsa, Okla	115	85	22	6	1	1	5
MOUNTAIN	727	463	148	49	24	41	30
Albuquerque, N.Mex	95	57	24	9	2	2	4
Colo. Springs, Colo	52	36	9	4	1	2	5
Denver, Colo	143	81	32	6	7	17	5
Las Vegas, Nev	109	59	32	10	3	4	3
Ogden, Utah	24	20	2	-	2	-	5
Phoenix, Ariz	136	82	27	12	3	12	1
Pueblo, Colo	23	22	-	-	-	1	1
Salt Lake City, Utah	43	32	6	2	3	-	2
Tucson, Ariz	102	74	16	6	3	3	4
PACIFIC	2,126	1,436	385	182	43	69	113
Berkeley, Calif	23	14	5	2	-	2	1
Fresno, Calif	119	88	20	4	1	6	14
Glendale, Calif	33	28	3	2	-	-	3
Honolulu, Hawaii	77	46	19	5	4	3	9
Long Beach, Calif	50	36	9	4	-	1	4
Los Angeles, Calif	546	342	114	56	14	11	21
Oakland, Calif	105	69	17	8	4	7	6
Pasadena, Calif	38	32	2	2	-	2	1
Portland, Oreg	125	93	22	6	3	1	8
Sacramento, Calif	184	128	32	16	1	7	12
San Diego, Calif	202	126	33	23	5	13	10
San Francisco, Calif	166	107	32	24	1	2	6
San Jose, Calif	195	145	30	10	3	7	8
Seattle, Wash	147	97	27	13	6	4	3
Spokane, Wash	56	38	10	4	1	3	6
Tacoma, Wash	60	47	10	3	-	-	1
TOTAL	14,225††	9,287	2,934	1,165	359	464	677

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*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages

§ Data not available. Figures are estimates based on average of past 4 weeks.

AIDS – Continued

exposed like other groups to casual contact with HTLV-III/LAV-infected persons, insects, and environmental factors. Of these, 61 (98%) fit into established risk categories. The risk factor investigation is incomplete on the remaining case.

Reported by State and Territorial Epidemiologists; AIDS Program, Center for Infectious Diseases, CDC.

Editorial Note: The number of reported AIDS cases continues to increase. An analysis of past trends using empirical models projects a cumulative case total of 270,000 by 1991 (*7,8*). The proportion of AIDS cases among most transmission categories has remained relatively constant. The geographic distribution of men and women with AIDS differs significantly ($p < .001$). Most reports of women with AIDS continue to come from Florida, New Jersey, and New York, while these states account for a much smaller proportion of male cases. Since most pediatric AIDS cases result from perinatal transmission of HTLV-III/LAV, the race/ethnicity and geographic distribution of pediatric AIDS patients is similar to that of reported AIDS cases among women.

The proportion of AIDS patients diagnosed with KS is declining (*9-11*), but most KS (95%) continues to be diagnosed among homosexual or bisexual men. KS alone is infrequently diagnosed among women (3% of cases) and children (4%) with AIDS. The reasons that certain patients develop KS remain unclear (*12,13*).

Numerous studies and continuing investigations of AIDS patients not belonging to recognized risk groups have not supported the existence of new modes of HTLV-III/LAV transmission (*14-17*). History of other sexually transmitted diseases among the "no identified risk" group as well as prostitute contact among male AIDS patients suggest that sexual contact with partners whose risk was unrecognized or unreported by the patient may be the mode of HTLV-III/LAV transmission for some of these patients. Given current epidemiologic data, AIDS patients who were born outside the United States and who do not have one of the predominant risk exposures have been moved from the "undetermined" transmission category to the "heterosexual contact" category. This move has increased the "heterosexual contact" category from 2% to 4% of adult cases and has decreased the "undetermined" category from 5% to 3%.

The HTLV-III/LAV antibody test allows further refinement of the case definition, especially in disease categories of lower specificity. CDC proposes, with the advice of outside consultants, to revise the case definition for national reporting of AIDS. One major objective of this revision is to increase the sensitivity and specificity of the case definition through greater diagnostic use of HTLV-III/LAV antibody test results.

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Epidemiologic Notes and Reports

Salmonellosis at a Resort Hotel — Puerto Rico

Several state health departments and CDC have received reports of salmonellosis in travelers returning from the Hotel Cerromar, Vega Alta, Puerto Rico. Earlier, in July 1986, CDC received reports about travelers returning from this hotel with *Salmonella enteritidis* infections. The Puerto Rico Department of Health investigated, and no additional cases were reported until November. At present, several state health departments have obtained preliminary epidemiologic information about additional cases from recently returning groups.

A New Jersey trade association held a convention at the hotel during the period November 1-8. At least 23 of 141 travelers (16%) complained of acute diarrhea. Two were hospitalized for a week in Puerto Rico, and three were hospitalized upon returning. *S. enteritidis* was isolated from two of these cases. A week later, during the period November 9-19, a New Jersey professional association hosted a convention of 1,400 members and their families at the hotel. The New Jersey State Department of Health contacted a representative sample of the group after receiving a report of four cases in one returning family. The attack rate is estimated to be 10% to 15%; onset dates ranged from November 12 to 22. Eight stool cultures have yielded *Salmonella* Group D, and six of these have been serotyped as *S. enteritidis*. A questionnaire followup is underway to determine whether or not further cases have occurred.

A convention of 800 food distributors, primarily from Connecticut and Massachusetts, was held at the same hotel, in two successive groups, during the period November 2-12. Among the 220 Connecticut residents, 16 (7%) reported diarrheal illness within several days after their visit. The Connecticut State Department of Health Services confirmed nine cases of *S. enteritidis* infection in this group. Followup is underway to more fully evaluate the extent of illness. The Massachusetts Department of Public Health has identified 42 cases (10%) of diarrheal illness among 442 state residents who had attended the same convention. *S. enteritidis* has been isolated from nine of these. Other possible cases are being investigated.

Most recently, CDC has received a report of eight cases of diarrheal illness among attendees of a Puerto Rican trade convention at the hotel during the period November 28-30. Thus far, two of five cultures obtained have yielded *Salmonella* Group D.

Salmonellosis — Continued

Reported by JL Hadler, MD, MPH, State Epidemiologist, Connecticut State Dept of Health Svcs; KM Gallagher, MPH, LM Mofenson, MD, GF Grady, MD, State Epidemiologist, Massachusetts Dept of Public Health; CH Turner, H Rosenfeld, DVM, JW Farrell, MSW, WE Parkin, DVM, State Epidemiologist, New Jersey State Dept of Health; JG Rigau, MD, Commonwealth Epidemiologist, Puerto Rico Dept of Health; Div of Field Svcs, Epidemiology Program Office, Enteric Diseases Br, Div of Bacterial Diseases, Center for Infectious Diseases, CDC.

Editorial Note: Laboratory studies are in progress to determine whether or not the same strain of *S. enteritidis* caused all of the outbreaks. Reports in both July and November of *S. enteritidis* gastroenteritis among persons visiting the same hotel suggest a recurrent source. Measures to control the outbreak are being implemented by the hotel management and the Puerto Rico Department of Health. Cases of salmonellosis developing in persons within 1 week after staying at this hotel should be reported to local and state health departments. State health departments are requested to report such cases to the Enteric Diseases Branch, Division of Bacterial Diseases, CDC. Information about the current status of the outbreak can be obtained by calling the Commonwealth of Puerto Rico, Department of Health, (809) 766-2240.

Recommendation of the Immunization Practices Advisory Committee (ACIP)

Rabies Prevention: Supplementary Statement on the Preexposure Use of Human Diploid Cell Rabies Vaccine by the Intradermal Route

The human diploid cell rabies vaccine (HDCV) produced by the Merieux Institute has been used extensively for preexposure immunization in a regimen of three 0.1-ml doses, one each on days 0, 7, and 21 or 28. The intradermal (ID) dose/route has previously been recommended by the ACIP as an alternative to the 1.0-ml intramuscular (IM) dose/route for rabies preexposure prophylaxis (*1*), but the manufacturer had not met the packaging and labeling requirements necessary to obtain approval by the U.S. Food and Drug Administration (FDA).

Merieux Institute has now developed a syringe containing a single dose of lyophilized HDCV (Imovax® Rabies ID) that is reconstituted in the syringe just before administration. The syringe is designed to reliably deliver 0.1 ml of HDCV and was approved by the FDA on May 30, 1986. Three 0.1-ml ID doses, given in the lateral aspect of the upper arm, on days 0, 7, and 21 or 28, are used for primary preexposure prophylaxis. One 0.1-ml ID dose is used for booster vaccination (based on previously outlined criteria [*1*]). Serologic testing is not necessary after preexposure prophylaxis with HDCV administered by either the ID or IM route. *The ID dose/route should not be used for postexposure prophylaxis.*

Chloroquine phosphate (administered for malaria chemoprophylaxis) and unidentified factors (that may include multiple concurrent vaccinations) may interfere with the antibody response to HDCV in persons traveling to developing countries (*2,3*). The IM dose/route of preexposure prophylaxis provides a sufficient margin of safety in this setting (*3*). HDCV should not be administered by the ID dose/route while a person is receiving chloroquine for malaria chemoprophylaxis. In persons receiving preexposure prophylaxis in preparation for travel to a rabies endemic area, the ID dose/route should be initiated early enough to allow the three-dose series to be completed 30 days or more before departure. If this is not possible, the IM dose/route should be used.

Rabies — Continued

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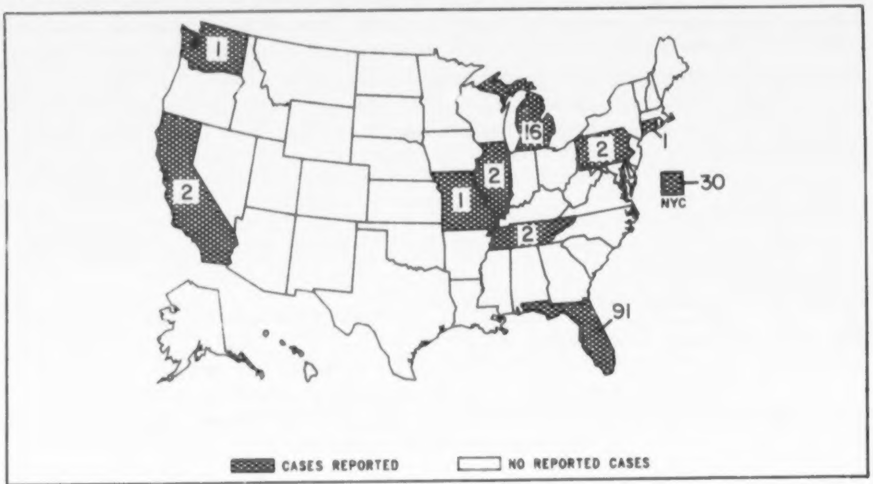
FIGURE I. Reported measles cases — United States, weeks 45-48, 1986



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Perspectives in Disease Prevention and Health Promotion

1986 Surgeon General's Report: The Health Consequences of Involuntary Smoking

Inhalation of tobacco smoke during active cigarette smoking remains the largest single preventable cause of death and disability in the United States. The health consequences of cigarette smoking and of the use of other tobacco products have been extensively documented in the 18 previous Surgeon General's reports issued by the Public Health Service. More than 300,000 premature deaths that are directly attributable to tobacco use—particularly cigarette smoking—occur each year in the United States. The magnitude of the disease risk for active smokers, secondary to their high dose exposure to tobacco smoke, suggests that the lower doses of smoke received by involuntary smokers also puts them at risk. The 1986 Surgeon General's Report explores the health consequences incurred by involuntary smokers. It was developed by the Office on Smoking and Health, Center for Health Promotion and Education, Centers for Disease Control (CDC) as part of the U. S. Department of Health and Human Services' responsibility under Public Law 91-222 to report new and current information on smoking and health to the U. S. Congress.

Data in the 1986 report present evidence that the chemical composition of sidestream smoke (smoke emitted into the environment by a smoker between puffs) is qualitatively similar to the mainstream smoke inhaled by the smoker and that both mainstream and sidestream smoke act as carcinogens in bioassay systems (*1*). Data on the environmental levels of the components of tobacco smoke and on nicotine absorption in nonsmokers suggest that nonsmokers are exposed to levels of environmental tobacco smoke (ETS) that would be expected to generate a lung cancer risk. In addition, epidemiological studies of populations exposed to ETS have documented an increased risk for lung cancer in those nonsmokers with increased exposure. Of the 13 epidemiological studies that were available for review in the scientific literature, 11 reported a positive relationship and six of these observed statistically significant results. It is rare to have such detailed exposure data or human epidemiologic studies on disease occurrence when attempting to evaluate the risk of low-dose exposure to an agent with established toxicity at higher levels of exposure. The relative abundance of data reviewed in the report, their cohesiveness, and their biologic plausibility allow a judgment that involuntary smoking can cause lung cancer in nonsmokers.

The 1986 Surgeon General's Report comes to three major conclusions:

- Involuntary smoking is a cause of disease, including lung cancer, in healthy nonsmokers.
- Compared with children of nonsmoking parents, children whose parents smoke have an increased frequency of respiratory symptoms and infections. They also have slightly smaller rates of increase in lung function as the lung matures.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES / PUBLIC HEALTH SERVICE

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Involuntary Smoking — Continued

- Simple separation of smokers and nonsmokers within the same air space may reduce, but does not eliminate, ETS exposure.

The report also reviews policies restricting smoking in public places and the workplace and states that, in the 1970s, an increasing number of public and private sector institutions began adopting policies to protect individuals from ETS exposure by restricting the circumstances in which smoking is permitted. Local governments have been enacting smoking ordinances at an increasing rate since 1980. Restrictions on smoking at the workplace have resulted from both governmental action and private initiative, and an increase in workplace smoking policies has been a trend of the 1980s. Laws restricting smoking in public places have been implemented with few problems and at little cost to state and local governments. Public opinion polls document strong and growing support for restricting or banning smoking in a wide range of public places.

The Surgeon General, in his preface to the report, states, "Cigarette smoking is an addictive behavior, and the individual smoker must decide whether or not to continue that behavior; however, it is evident from the data presented in this volume that the choice to smoke cannot interfere with the nonsmokers' right to breathe air free of tobacco smoke."

Reported by Office on Smoking and Health, Center for Health Promotion and Education, CDC.

Editorial Note: A review recently published by the National Academy of Sciences states that approximately 20% of the estimated 12,200 lung cancer deaths occurring annually in nonsmokers are attributable to environmental tobacco smoke (*2*). This estimate falls close to the mid-point of the range published by Repace and Lowery, who state that between 500 and 5,000 lung cancer deaths may occur annually as a result of nonsmokers' exposure to tobacco smoke (*3*). By comparison, figures published in the *Journal of the Air Pollution Control Association* estimate that between 1,300 and 1,700 total cases of cancer resulting from other air pollutants in the general environment occur each year in the United States (*4*). Thus, while the number of lung cancer deaths that may be related to ETS exposure is small compared with those caused by active smoking, the actual number of lung cancer deaths caused annually by involuntary smoking is large. In addition, ETS causes more cases of cancer annually than many other agents in the general environment that are regulated because of their potential to cause disease.

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Epidemiologic Notes and Reports

Rubella and Congenital Rubella Syndrome — New York City

In 1985, a provisional total of 630 cases of rubella (0.26/100,000 population) was reported in the United States. This is the lowest annual total since rubella became a nationally notifiable disease in 1966. It represents a 16% decrease from the 1984 total of 752 cases and a 99% decline from 1969, the year of rubella vaccine licensure and the year with the greatest number of reported cases (57,686). Reported rubella activity for the first 46 weeks of 1986 was 22% below that reported for the same time period in 1985. In spite of this high degree of rubella control, outbreaks of rubella in New York City (NYC) in 1985, and subsequently of congenital rubella syndrome (CRS) in 1986, raise concern about the potential for similar outbreaks in other areas of the United States.

Rubella

NYC experienced outbreaks of rubella each spring during the period 1983-1985 (*1-3*). These outbreaks primarily involved adults, and spread occurred in the workplace. Heightened rubella activity in 1985 (Figure 1) was associated with the recognized occurrence of outbreaks in a prison (50 cases), as previously reported (*3*); in a factory (45 cases); and in five hospitals (18 cases). Altogether, NYC* reported 184 cases of rubella to the Centers for Disease Control (CDC) in 1985. Age was reported for 173 of the patients involved; 91% of them were ≥20 years old.

Forty-five cases of rubella occurred in a population of predominantly Hispanic female workers at a factory in the South Bronx. Onsets of rash occurred between February 8 and April 8, 1985. The estimated attack rate for this facility was 7.5%. Patients ranged from 19 to 56 years of age (median = 40 years). Six pregnant women were identified among the employees; all were found to have prior immunity to rubella. Exclusion of the ill employees and of the pregnant women, pending serologic determination of immunity, resulted in 100 missed person-days of work.

During the spring of 1985, eighteen cases of rubella occurred in hospital workers from five medical facilities. Fourteen of these cases occurred in one large hospital located in the South Bronx. Ten of 14 cases were serologically confirmed by demonstration of enzyme-linked immunosorbent assay (ELISA) rubella-specific IgM. The three first-generation cases were epidemiologically linked to the rubella outbreak occurring in the factory described above. Workers from this factory had gone to the hospital's dermatology clinic, where transmission to the medical staff occurred. This hospital outbreak continued for three generations and involved four physicians, five nurses, two laboratory workers, two clerical workers, and

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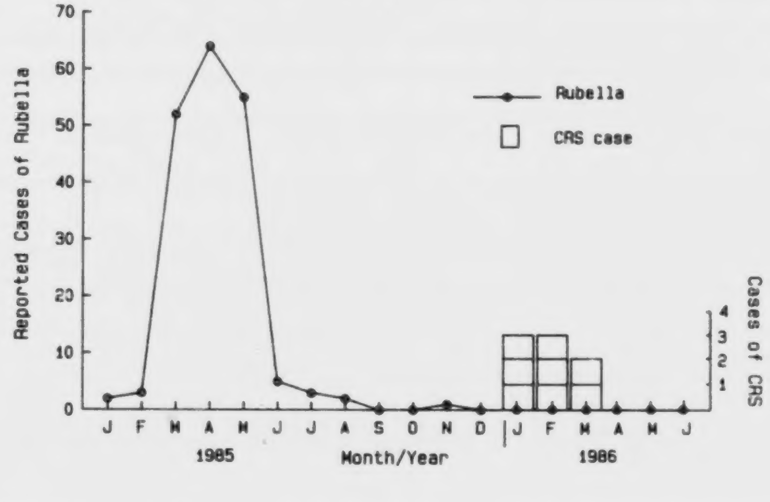
*Case definition used in NYC: generalized maculopapular rash and at least one of the following: fever, conjunctivitis, coryza, arthralgia, lymphadenopathy, or headache.

FIGURE 1. Reported rubella by month of rash onset, and reported CRS by month of birth, New York City, January 1985 — June 1986



Rubella – Continued

one x-ray technician. All of the patients had a rash that lasted from 1 to 7 days. Onsets of rash occurred between March 22 and May 6, 1985. Patients ranged from 24 to 37 years of age (median = 28 years).

Methods used to control the outbreaks included determining the rubella status of all employees, vaccinating susceptibles, and improving active surveillance. In addition, exclusion of employees during their infectious periods was recommended. The protocol used for controlling the outbreaks was similar to that used in previous outbreaks of rubella in the workplace (*4*).

Congenital Rubella Syndrome

During the first 5 months of 1986, eight suspected cases of CRS were reported to the NYC Department of Health. The diagnosis of CRS in all infants was based on clinical and laboratory data. CRS was serologically confirmed in five cases by demonstration of ELISA rubella-specific IgM; three cases were classified as CRS compatible by CDC criteria (Table 1) (*5*).

All eight of these births occurred in major NYC medical centers between January 5 and March 11, 1986, which was 8 to 10 months after the peak of the rubella outbreak (Figure 1). All eight infants had congenital heart disease: five of them had patent ductus arteriosus; four, peripheral pulmonary artery stenosis, and one, an atrial septal defect. In addition, six of the infants had cataracts; three, hearing loss; two, purpura; one, hepatosplenomegaly; one, congenital glaucoma; and one, microcephaly. Four (50%) of the mothers reported a rubella-like illness with a rash during the first 2 months of pregnancy. However, even though two were evaluated by physicians, none were diagnosed as having rubella. None of the seven mothers interviewed were linked to any other known cases of rubella.

In an effort to determine how this outbreak might have been prevented, information on the mothers of infants with CRS was obtained from hospital records and from personal interviews

TABLE 1. CDC criteria for classification of congenital rubella syndrome (CRS) cases

I CRS CONFIRMED — Defects present and one or more of the following:
  - A Rubella virus isolated.
  - B Rubella-specific IgM present.
  - C Rubella hemagglutination-inhibition (HI) titer in the infant persisting above and beyond that expected from passive transfer of maternal antibody (i.e., rubella HI titer in the infant which does not fall off at the expected rate of one 2-fold dilution/month).

II CRS COMPATIBLE — Laboratory data insufficient for confirmation and any two complications listed in A or one from A and one from B:
  - A Cataracts/congenital glaucoma (either or both count as one), congenital heart disease, loss of hearing, pigmentary retinopathy.
  - B Purpura, splenomegaly, jaundice, microcephaly, mental retardation, meningoencephalitis, radiolucent bone disease.

III CRS POSSIBLE — Some compatible clinical findings present, but not sufficient to fulfill the criteria for a compatible case.

IV CONGENITAL RUBELLA INFECTION ONLY — Laboratory evidence of infection, but no defects present.

V STILLBIRTHS — Stillbirths which are thought to be secondary to maternal rubella infection.

VI NOT CRS — One or more of any of the following inconsistent laboratory findings in a child without evidence of an immunodeficiency disease:
  - A Rubella HI titer absent in a child $\leq$ 24 months.
  - B Rubella HI titer absent in mother.
  - C Rubella HI titer decline in an infant consistent with the normal decline of passively transferred maternal antibody after birth (the expected rate of decline of maternal antibodies is one 2-fold dilution/month).

Rubella – Continued

with seven of the eight women (Table 2). Information on race and ethnicity was available for all eight women: four (50%) were Hispanic, two were black, one was Asian, and one was a non-Hispanic white. In contrast, Hispanics accounted for only 28.4% of total live births in NYC in 1985 (NYC Department of Health, Bureau of Health Statistics and Analysis, unpublished data, 1985). Four of the women were immigrants: two were from the Dominican Republic (year of immigration, 1983 and 1985, respectively); one was from Guyana (1981); and one, from Poland (1976). One woman lived in a welfare hotel. The women ranged from 18 to 29 years of age (median = 24 years), and they had received from 8 to 12 years of formal education (mean = 9.6 years). Five of the women were married; none were employed. Only one lived in the South Bronx. Five of them had previously delivered live infants in NYC hospitals; two of the women had each had two previous live births. At least one woman had undergone rubella screening during a previous pregnancy and was found to be susceptible, but had not been immunized postpartum. None of the seven women interviewed had attended family planning clinics prior to conception.

Five of the seven women interviewed reported receiving prenatal care at clinics affiliated with major medical centers, beginning in the first or second trimester. Two women reported no prenatal care. Based on their ages and personal histories, only two of the eight women (ages 18 and 19) could have been enrolled in NYC schools at a time when rubella vaccine was required by law. The 18-year-old reported rubella vaccination in 1970, but investigators were unable to obtain provider verification. The 19-year-old, an intravenous drug abuser, could not be located. In addition, a 29-year-old woman reported having previously received rubella vaccine in a public clinic prior to entering school. This claim was discounted because the reported immunization would have occurred before the licensure of rubella vaccine. None of the other seven women who were interviewed reported previous rubella vaccination.

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Editorial Note: This is the first reported cluster of CRS cases in the United States since the occurrence of outbreaks in Chicago (1978-1979, 30 cases) (*6*) and the San Francisco Bay area (1979-1980, 13 cases) (*7*). So far in 1986, nine cases of CRS have been reported to the National Congenital Rubella Syndrome Register, a passive surveillance system maintained at the Division of Immunization, CDC (*5*). The outbreak in NYC accounts for eight of these and underscores two serious concerns. First, 10% to 20% of postpubertal women still lack serologic evidence of immunity to rubella (*8-10*), and, second, the continued occurrence of rubella in the childbearing-aged population means that potentially preventable CRS cases will

TABLE 2. Characteristics of mothers of infants with congenital rubella syndrome — New York City, 1986

Case #	Age	Race/ Ethnicity	History of illness with rash	Prenatal care	Number of previous live births
1	24	Hispanic	Yes	Yes	1
2	26	Hispanic	No	Yes	2
3	29	Black	Yes	Yes	0
4	27	Asian	Yes	Yes	0
5	18	Hispanic	No	No	1
6	29	White	Yes	Yes	1
7	19	Hispanic	No	No	0
8	19	Black	Unknown	Unknown	2

Rubella – Continued

occur during the next 10 to 30 years until highly immune cohorts of persons vaccinated as children make up the entire childbearing-aged population.

Since the spring of 1985, the NYC Department of Health has maintained a pregnancy log to follow prospectively the outcomes of pregnant women with serologically confirmed rubella. Nine such women were enrolled for followup in 1985; seven of them elected to carry their pregnancies to term. No CRS cases have been identified from these pregnancies. None of the mothers of the infants with reported cases of CRS were included in this pregnancy log. This observation and the failure to directly link any CRS cases with recognized outbreaks of rubella in NYC emphasize the fact that reported rubella cases monitored only the trend in rubella activity in NYC and did not include all rubella cases that occurred in 1985.

To increase levels of rubella immunization in the childbearing-aged population, a multifaceted approach is necessary. Rubella vaccine should be offered to susceptible postpubertal women whenever they have contact with the health care system. Specific settings where immunization of hard-to-reach adult populations might be accomplished include colleges, family planning clinics, health care institutions, and places of employment. There should also be both followup immunization of women found to be susceptible by premarital rubella screening and postpartum and postabortion immunization of susceptibles identified by screening during pregnancy.

(Continued on page 779)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	50th Week Ending			Cumulative, 50th Week Ending		
	Dec 13, 1986	Dec 14, 1985	Median 1981-1985	Dec 13, 1986	Dec 14, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	417	176	N	12,405	7,653	N
Aseptic meningitis	205	179	170	10,257	9,999	9,340
Encephalitis: Primary (arthropod-borne & unspec.)	13	29	24	1,164	1,264	1,478
Post-infectious	2	-	3	95	114	91
Gonorrhea: Civilian	15,596	17,444	20,470	852,103	853,899	869,203
Military	482	211	358	16,309	19,805	23,154
Hepatitis: Type A	471	414	460	21,768	22,043	22,043
Type B	496	534	534	24,559	25,209	23,130
Non A, Non B	47	70	N	3,324	3,910	N
Unspecified	95	124	124	4,214	5,536	6,951
Legionellosis	15	9	N	773	734	N
Leprosy	12	1	5	245	346	233
Malaria	8	15	10	1,049	988	988
Measles: Total*	169	9	18	6,133	2,726	2,548
Indigenous	165	7	N	5,830	2,290	N
Imported	4	2	N	297	436	N
Meningococcal infections: Total	36	54	54	2,321	2,308	2,600
Civilian	36	54	54	2,319	2,301	2,584
Military	-	-	-	2	7	13
Mumps	171	74	75	5,344	2,843	3,237
Pertussis	34	62	40	4,041	3,406	2,197
Rubella (German measles)	3	4	12	483	605	938
Syphilis (Primary & Secondary): Civilian	452	431	622	25,914	25,676	30,023
Military	10	2	5	160	153	357
Toxic Shock syndrome	4	4	N	333	353	N
Tuberculosis	419	482	597	21,047	20,594	22,663
Tularemia	6	1	5	160	173	276
Typhoid fever	14	3	8	306	369	385
Typhus fever, tick-borne (RMSF)	6	2	3	744	685	956
Rabies, animal	64	98	70	5,134	5,194	5,719

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1986		Cum. 1986
Anthrax	-	Leptospirosis (La. 1)	39
Botulism: Foodborne	18	Plague (Calif. 1)	9
Infant (Upstate N.Y. 1, Ohio 1, Idaho 1)	67	Poliomyelitis, Paralytic	1
Other	1	Psittacosis (Ohio 2)	90
Brucellosis	78	Rabies, human	-
Cholera	17	Tetanus (Ind. 1)	61
Congenital rubella syndrome (N.Y. City 1)	11	Trichinosis	31
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine) (Ohio 1)	48
Diphtheria	-		

*Four of the 169 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending December 13, 1986 and December 14, 1985 (50th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	12,405	205	1,164	95	852,103	853,899	471	496	47	95	15	245
NEW ENGLAND	489	7	30	3	23,080	21,828	16	40	1	3	-	8
Maine	20	1	2	-	800	1,110	-	1	-	-	-	-
N.H.	13	-	2	-	562	547	-	-	-	-	-	-
Vt	5	2	4	2	260	326	1	1	1	-	-	-
Mass	272	3	6	-	8,297	9,145	7	29	-	3	-	8
R.I.	31	-	-	-	1,780	1,811	-	-	-	-	-	-
Conn	148	1	16	1	11,381	8,889	8	9	-	-	-	-
MID ATLANTIC	4,510	12	107	10	148,431	124,888	8	34	4	35	-	19
Upstate N.Y.	471	12	36	6	17,983	17,413	3	18	4	2	-	1
N.Y. City	2,998	-	20	1	85,702	61,145	-	2	-	31	-	17
N.J.	738	-	10	-	19,444	18,909	5	14	-	2	-	-
Pa	303	-	41	3	25,302	27,421	-	-	-	-	-	1
E.N. CENTRAL	756	26	354	11	109,959	111,454	27	41	1	2	6	4
Ohio	154	15	137	3	28,160	30,288	16	21	-	1	6	-
Ind	59	2	82	3	12,131	12,389	3	6	-	-	-	-
Ill	363	-	50	4	25,710	25,656	-	-	-	-	-	4
Mich	139	9	57	1	36,344	32,462	8	14	1	1	-	1
Wis	41	-	28	-	7,362	10,659	-	-	-	-	-	-
W.N. CENTRAL	230	8	88	9	36,594	39,873	13	19	1	1	-	4
Minn	88	1	39	-	5,272	5,867	5	4	-	1	-	2
Iowa	19	-	27	-	3,717	4,215	1	2	1	-	-	-
Mo	73	5	3	-	18,075	19,410	-	11	-	-	-	-
N. Dak	3	-	4	-	298	272	1	-	-	-	-	-
S. Dak	2	1	11	-	749	767	6	-	-	-	-	-
Nebr	11	-	1	1	2,682	3,339	-	2	-	-	-	-
Kans	34	1	3	8	5,801	6,003	-	-	-	-	-	2
S. ATLANTIC	1,812	28	147	39	221,248	222,493	28	91	2	12	5	3
Del	23	-	6	-	3,625	4,319	5	1	-	-	-	-
Md	180	3	33	1	26,316	28,291	4	16	-	-	1	-
D.C.	229	-	1	1	16,592	15,289	1	2	-	-	1	-
Va	152	4	40	1	18,337	18,589	7	12	-	4	2	1
W. Va	8	1	45	-	2,114	2,472	-	2	1	2	-	-
N.C.	78	10	18	2	34,548	35,283	-	8	-	2	-	-
S.C.	49	-	-	-	18,737	20,954	-	11	-	-	1	-
Ga	262	1	-	1	36,722	43,165	3	8	-	2	-	-
Fla	831	9	4	33	64,257	54,131	8	31	1	2	-	2
E.S. CENTRAL	150	34	66	4	67,716	73,927	3	40	3	1	-	1
Ky	28	19	32	1	7,516	8,467	-	4	-	-	-	-
Tenn	70	8	8	1	25,494	28,354	2	16	2	-	-	-
Ala	28	5	25	2	19,946	22,148	-	13	-	-	-	1
Miss	24	2	1	-	14,760	14,958	1	7	1	1	-	-
W.S. CENTRAL	1,090	59	183	6	99,547	106,680	53	59	4	13	2	25
Ark	29	8	-	2	9,311	10,074	3	4	1	1	-	1
La	149	32	16	-	17,401	20,123	-	17	-	1	-	1
Okla	41	5	21	-	11,331	11,938	11	2	-	-	-	-
Tex	871	14	146	4	61,504	64,545	39	36	3	11	2	23
MOUNTAIN	323	2	39	1	25,061	27,110	72	51	2	10	1	13
Mont	5	-	1	1	650	771	2	1	-	-	-	-
Idaho	3	-	-	-	841	941	2	2	-	1	-	-
Wyo	4	-	2	-	510	606	-	-	-	-	-	-
Colo	154	-	5	-	6,426	7,845	12	6	-	4	-	3
N. Mex	23	1	3	-	2,673	3,028	10	6	-	-	1	-
Ariz	79	1	18	-	8,057	8,284	40	26	1	1	-	7
Utah	19	-	8	-	1,077	1,301	3	4	-	2	-	1
Nev	36	-	2	-	4,827	4,334	3	6	1	2	-	2
PACIFIC	3,045	29	150	12	120,467	125,646	251	121	29	18	1	168
Wash	153	1	15	-	8,694	9,699	5	8	4	-	-	17
Oreg	61	-	-	-	5,232	6,158	41	20	-	-	-	-
Calif	2,766	25	127	12	103,002	105,150	191	93	23	17	1	115
Alaska	12	2	7	-	2,543	3,012	13	-	2	1	-	-
Hawaii	53	1	1	-	1,248	1,627	1	-	-	-	-	35
Guam	-	-	-	-	212	192	-	-	-	-	-	1
P.R.	115	-	5	1	2,329	2,976	1	7	1	4	-	7
V.I.	4	U	-	-	259	386	U	U	U	U	U	-
Pac. Trust Terr	-	-	-	-	467	766	-	-	-	-	-	63
Amer. Samoa	-	-	-	-	57	-	-	-	-	-	-	3

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 13, 1986 and December 14, 1985 (50th Week)

Reporting Area	Malaria	Measles (Rubeola)						Meningococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total										
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985		Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	1,049	165	5,830	4	297	2,726		2,321	171	5,344	34	4,041	3,406	3	483	605
NEW ENGLAND	63	-	88	-	16	126		165	-	68	2	175	209	-	9	13
Maine	2	-	12	-	1	1		28	-	-	-	2	9	-	-	-
N.H.	4	-	43	-	-	-		6	-	14	-	82	112	-	1	3
Vt	2	-	-	-	-	-		19	-	4	-	3	4	-	1	-
Mass	32	-	24	-	13	118		49	-	14	-	56	51	-	4	6
R.I.	7	-	2	-	-	-		22	-	13	-	6	22	-	2	-
Conn	16	-	7	-	2	7		41	-	23	2	26	11	-	1	4
MID ATLANTIC	145	138	1,869	4	38	232		369	6	212	8	212	255	-	37	229
Upstate N.Y.	51	-	77	-	24	85		132	5	73	8	134	123	-	27	19
N.Y. City	31	138	861	2†	6	79		71	-	29	-	10	29	-	5	185
N.J.	37	-	905	2†§	6	28		30	1	52	-	20	11	-	5	11
Pa	26	-	26	-	2	40		136	-	58	-	48	92	-	-	14
E.N. CENTRAL	61	3	1,123	-	28	582		346	118	3,494	1	384	817	1	50	38
Ohio	19	-	-	-	10	60		141	1	136	-	167	120	-	1	-
Ind	2	-	27	-	11	57		39	47	90	-	36	201	-	-	1
Ill	16	2	705	-	4	346		74	24	2,560	1	37	76	1	39	20
Mich	20	1	107	-	-	60		74	45	430	-	36	49	-	8	16
Wis	4	-	284	-	3	59		17	1	278	-	105	371	-	2	1
W.N. CENTRAL	32	-	324	-	17	13		109	11	182	-	1,408	256	-	14	19
Minn	10	-	45	-	4	6		23	-	20	-	48	133	-	1	2
Iowa	1	-	133	-	1	-		11	11	73	-	19	33	-	1	1
Mo	12	-	26	-	6	4		39	-	25	-	24	33	-	1	7
N. Dak	-	-	25	-	1	2		1	-	4	-	5	10	-	1	2
S. Dak	2	-	-	-	-	-		5	-	1	-	14	6	-	-	-
Nebr	4	-	1	-	-	-		11	-	2	-	10	11	-	-	-
Kans	3	-	94	-	5	1		19	-	57	-	1,288	30	-	10	7
S. ATLANTIC	125	15	790	-	57	342		421	3	250	10	773	557	-	12	55
Del	1	-	1	-	-	-		7	-	1	-	227	2	-	-	2
Md	14	-	26	-	9	115		47	1	30	1	165	321	-	1	6
D.C.	5	-	-	-	2	31		5	-	1	-	-	-	-	-	-
Va	34	-	36	-	24	28		74	-	45	5	55	21	-	-	2
W. Va	4	-	2	-	-	33		4	-	49	-	26	4	-	-	9
N.C.	7	-	3	-	1	9		67	-	28	3	85	38	-	-	1
S.C.	6	-	274	-	-	3		45	1	16	-	18	2	-	-	3
Ga	13	-	79	-	14	8		59	-	28	-	133	98	-	-	3
Fla	41	15	369	-	7	115		113	1	52	1	64	71	-	11	29
E.S. CENTRAL	21	-	61	-	9	7		116	10	234	-	47	70	-	4	3
Ky	6	-	-	-	6	5		27	-	6	-	5	8	-	4	3
Tenn	1	-	55	-	1	1		37	10	223	-	16	28	-	-	-
Ala	10	-	1	-	1	-		38	-	4	-	25	27	-	-	-
Miss	4	-	5	-	1	1		14	-	1	-	1	7	-	-	-
W.S. CENTRAL	106	-	680	-	38	452		217	7	279	1	253	553	2	73	42
Ark	1	-	276	-	2	-		30	-	61	-	20	16	-	1	1
La	18	-	4	-	-	42		26	-	3	-	15	17	-	-	-
Okla	12	-	37	-	2	1		31	N	N	1	129	169	-	-	2
Tex	75	-	363	-	34	409		130	7	215	-	89	351	2	72	39
MOUNTAIN	39	-	303	-	29	541		107	6	258	3	281	239	-	24	6
Mont	1	-	-	-	8	137		10	-	6	-	20	10	-	2	-
Idaho	1	-	1	-	-	137		4	-	9	2	51	27	-	-	2
Wyo	-	-	-	-	-	5		2	-	-	-	4	1	-	1	-
Colo	12	-	2	-	8	15		20	-	17	-	66	94	-	1	-
N. Mex	5	-	33	-	7	6		12	N	N	-	28	14	-	-	2
Ariz	13	-	252	-	6	241		22	5	200	-	65	40	-	2	1
Utah	4	-	13	-	-	-		10	-	15	1	43	53	-	15	-
Nev	3	-	2	-	-	-		27	1	11	-	4	-	-	3	1
PACIFIC	457	9	592	-	65	431		471	10	367	9	508	450	-	260	200
Wash	32	8	148	-	26	142		63	2	21	3	155	86	-	17	14
Oreg	19	-	7	-	4	5		36	N	N	-	16	50	-	4	2
Calif	405	1	410	-	31	260		346	8	314	4	302	267	-	233	135
Alaska	-	-	-	-	-	-		14	-	8	-	5	30	-	-	1
Hawaii	1	-	27	-	2	24		13	-	24	2	33	17	-	6	48
Guam	1	-	4	-	1	11		1	-	4	-	-	-	-	4	3
P.R.	4	8	44	-	-	67		4	-	34	-	19	16	-	62	27
V.I.	-	U	-	U	-	10		-	U	17	U	-	-	U	-	-
Pac. Trust Terr.	-	-	-	-	-	-		1	-	11	-	-	-	-	3	-
Amer. Samoa	-	-	2	-	-	-		-	-	5	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 13, 1986 and December 14, 1985 (50th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic shock Syndrome	Tuberculosis		Tularemia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	25,914	25,676	4	21,047	20,594	160	306	744	5,134
NEW ENGLAND	473	565	-	647	680	1	16	13	8
Maine	19	17	-	34	45	-	-		-
N.H.	13	40	-	23	22	-	-	2	1
Vt.	9	7	-	16	8	-	-		2
Mass.	258	280	-	359	401	1	13	4	-
R.I.	19	17	-	46	52			3	3
Conn.	155	204	-	169	152	-	3	4	2
MID. ATLANTIC	3,604	3,472	-	4,101	3,622	1	24	40	642
Upstate N.Y.	174	254	-	603	627	-	4	20	82
N.Y. City	2,052	2,101	-	2,152	1,782	-	11	5	
N.J.	618	662	-	688	479	1	8	2	17
Pa.	760	455	-	658	734	-	1	13	543
E.N. CENTRAL	820	939	-	2,473	2,515	1	23	46	139
Ohio	125	143	-	435	434	-	9	40	16
Ind.	108	-80	-	269	325	-	2	-	17
Ill.	370	414	-	1,073	1,106		3	2	41
Mich.	177	240	-	589	512	1	6	4	25
Wis.	40	62	-	107	138		3		40
W.N. CENTRAL	203	222	3	623	594	45	9	51	803
Minn.	33	45	3	146	120	-	2	1	132
Iowa	8	18	-	48	57	1	-	1	183
Mo.	106	122	-	307	289	34	6	27	68
N. Dak.	5	2	-	10	10	-	-	1	151
S. Dak.	9	6	-	28	31	3	-	6	178
Nebr.	11	7	-	16	18	1	-	5	37
Kans.	31	22	-	68	69	6	1	10	54
S. ATLANTIC	7,820	7,371	-	4,264	4,291	13	46	333	1,301
Del.	58	36	-	46	45	-	1	1	1
Md.	448	478	-	299	389	2	16	29	566
D.C.	291	322	-	158	149	1	4	-	36
Va.	323	291	-	356	426	3	10	51	196
W. Va.	20	26	-	123	105		3	10	58
N.C.	515	657	-	641	596	3	4	129	10
S.C.	684	782	-	537	502	-	-	71	65
Ga.	1,449	1,343	-	718	725	4	-	40	197
Fla.	4,032	3,436	-	1,386	1,353	-	8	2	172
E.S. CENTRAL	1,705	2,005	1	1,864	1,784	16	4	111	360
Ky.	66	65	1	424	444	7		22	105
Tenn.	599	642	-	545	536	7	1	46	138
Ala.	498	633	-	575	519	1	1	25	114
Miss.	542	665	-	320	285	1	2	18	3
W.S. CENTRAL	5,054	5,894	-	2,716	2,627	68	34	139	700
Ark.	253	314	-	374	316	49		16	158
La.	896	1,033	-	392	383	1	3	1	22
Okla.	142	189	-	248	245	13	2	103	59
Tex.	3,763	4,358	-	1,702	1,683	5	29	19	461
MOUNTAIN	599	734	-	518	554	12	16	10	645
Mont.	7	6	-	31	46	1	1	4	212
Idaho	15	7	-	23	25	-		2	9
Wyo.	4	14	-	-	7	1	-	1	271
Colo.	133	207	-	55	89	3	1	3	29
N. Mex.	68	120	-	98	83	2	1	-	6
Ariz.	247	308	-	240	245	-	9	-	100
Utah	18	12	-	31	21	4	3	-	7
Nev.	107	60	-	40	38	1	1	-	11
PACIFIC	5,636	4,474	-	3,841	3,927	3	134	1	536
Wash.	168	107	-	207	211	1	3		5
Oreg.	115	105	-	122	131	-	-	-	1
Calif.	5,308	4,191	-	3,281	3,307	1	124	1	522
Alaska	11	4	-	56	95	1	1		8
Hawaii	34	67	-	175	183	-	6		
Guam	1	2	-	35	38	-	1	-	-
P.R.	838	844	-	329	340	-	5	-	47
V.I.	1	3	U	1	1	-	-	-	-
Pac. Trust Terr.	262	128	-	94	75	-	49		-
Amer. Samoa	1	-	-	6	-	-	-		

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending December 13, 1986 (50th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	709	486	150	53	7	13	45
Boston Mass	197	116	53	19	2	7	18
Bridgeport Conn	45	36	6	2	1	-	2
Cambridge Mass	27	21	5	1	-	-	4
Fall River Mass	20	17	2	1	-	-	-
Hartford Conn	57	32	12	9	2	2	3
Lowell Mass	32	24	7	1	-	-	3
Lynn Mass	16	12	3	1	-	-	2
New Bedford Mass	26	23	3	-	-	-	-
New Haven Conn	66	40	17	7	-	2	2
Providence R I	60	39	16	3	1	1	-
Somerville Mass	12	9	1	2	-	-	2
Springfield Mass	41	31	8	2	-	-	3
Waterbury Conn	28	20	6	2	-	-	3
Worcester Mass	82	66	11	3	1	1	3
MID ATLANTIC	2,978	1,901	631	295	59	91	153
Albany N Y	54	39	10	2	1	2	-
Allentown Pa	18	14	4	-	-	-	-
Buffalo N Y	138	95	28	6	2	6	13
Camden N J	42	27	9	2	3	1	1
Elizabeth N J	19	11	7	1	-	-	1
Erie Pa †	40	31	6	2	-	1	2
Jersey City N J	63	24	16	15	3	5	2
N Y City N Y	1,619	1,012	326	188	30	63	82
Newark N J	53	22	16	10	4	1	3
Paterson N J	24	15	5	4	-	-	2
Philadelphia Pa	400	253	96	35	10	6	18
Pittsburgh Pa †	63	42	18	2	-	1	2
Reading Pa	27	21	4	2	-	-	3
Rochester N Y	119	83	24	7	4	1	3
Schenectady N Y	31	23	6	1	1	-	4
Scranton Pa †	35	28	6	1	-	-	1
Syracuse N Y	113	80	23	7	-	3	9
Trenton N J	42	26	9	6	-	1	2
Utica N Y	29	21	7	1	-	-	1
Yonkers N Y	49	34	11	3	1	-	4
E N CENTRAL	2,402	1,573	504	172	60	93	107
Akron Ohio	69	45	13	6	3	2	-
Canton Ohio	51	37	10	2	1	1	8
Chicago Ill §	564	362	125	45	10	22	16
Cincinnati Ohio	138	87	35	8	4	4	12
Cleveland Ohio	176	107	44	15	5	5	4
Columbus Ohio	131	75	31	13	7	5	-
Dayton Ohio	114	73	25	8	4	4	3
Detroit Mich	267	156	68	24	6	13	7
Evansville Ind	53	48	4	-	-	1	2
Fort Wayne Ind	72	49	9	9	2	3	5
Gary Ind	14	6	4	2	1	1	-
Grand Rapids Mich	60	46	10	2	1	1	7
Indianapolis Ind	175	113	32	13	5	12	5
Madison Wis	38	17	13	3	1	4	2
Milwaukee Wis	149	111	19	5	7	7	8
Peoria Ill	44	31	10	1	-	2	8
Rockford Ill	40	28	9	2	-	1	5
South Bend Ind	44	32	9	3	-	-	3
Toledo Ohio	140	102	24	9	1	4	9
Youngstown Ohio	63	48	10	2	2	1	3
W N CENTRAL	885	614	184	50	18	19	51
Des Moines Iowa	83	60	17	2	3	1	6
Duluth Minn	24	19	4	1	-	-	-
Kansas City Kans	35	11	18	4	1	1	-
Kansas City Mo	140	96	30	8	3	3	10
Lincoln Nebr	51	42	4	4	1	-	5
Minneapolis Minn	163	124	26	7	2	4	12
Omaha Nebr	103	65	28	4	2	4	5
St Louis Mo	133	87	29	12	1	4	10
St Paul Minn	68	54	7	3	3	1	2
Wichita Kans	85	56	21	5	2	1	1
S ATLANTIC	1,533	955	341	130	49	57	68
Atlanta Ga	191	103	50	21	12	5	3
Baltimore Md	396	272	73	29	12	10	24
Charlotte N C	106	64	29	6	2	5	3
Jacksonville Fla	113	73	25	10	3	2	10
Miami Fla	132	61	40	17	4	10	1
Norfolk Va	82	55	20	1	-	6	2
Richmond Va	73	51	16	3	-	3	7
Savannah Ga	38	25	8	3	1	1	1
St Petersburg Fla	96	79	11	3	3	-	10
Tampa Fla	85	49	16	9	4	6	2
Washington D C §	179	93	45	25	7	9	4
Wilmington Del	42	30	8	3	1	-	1
E S CENTRAL	837	559	177	50	28	23	37
Birmingham Ala	127	88	18	11	4	6	3
Chattanooga Tenn	70	46	17	6	1	-	7
Knoxville Tenn	73	53	15	3	1	1	7
Louisville Ky	127	86	29	6	4	2	5
Memphis Tenn	190	124	43	14	7	2	7
Mobile Ala	95	70	13	3	6	3	3
Montgomery Ala	40	27	10	-	3	-	2
Nashville Tenn	115	65	32	7	2	9	3
W S CENTRAL	1,576	981	343	135	54	63	67
Austin Tex	73	46	13	7	4	3	3
Baton Rouge La	47	25	10	3	2	7	4
Corpus Christi Tex	56	37	8	7	1	3	1
Dallas Tex	230	140	56	17	9	8	6
El Paso Tex	85	56	15	5	4	5	7
Fort Worth Tex	148	92	27	11	7	11	14
Houston Tex	417	239	106	48	11	13	9
Little Rock Ark	71	43	17	4	3	4	6
New Orleans La	95	59	21	11	2	2	1
San Antonio Tex	181	120	34	16	5	6	4
Shreveport La	41	32	5	3	1	-	4
Tulsa Okla	132	92	31	3	5	1	8
MOUNTAIN	710	451	146	59	25	28	44
Albuquerque N Mex	90	54	24	10	1	1	6
Colo Springs Colo	51	29	11	4	4	2	7
Denver Colo	114	73	22	12	3	4	4
Las Vegas Nev	86	55	21	7	2	1	9
Ogden Utah	16	12	1	1	-	2	2
Phoenix Ariz	138	85	29	8	6	10	2
Pueblo Colo	22	18	3	-	1	-	6
Salt Lake City Utah	70	42	11	9	2	6	-
Tucson Ariz	123	83	24	8	6	2	8
PACIFIC	2,040	1,339	408	176	61	56	127
Berkeley Calif	23	17	1	2	2	1	3
Fresno Calif	66	45	15	2	1	3	5
Glendale Calif	25	20	4	-	-	1	1
Honolulu Hawaii	66	45	13	5	2	1	12
Long Beach Calif	88	57	21	5	2	3	12
Los Angeles Calif	556	356	121	50	18	11	18
Oakland Calif §	69	49	12	4	2	2	2
Pasadena Calif	16	13	-	1	-	2	1
Portland Oreg	147	105	24	11	3	4	8
Sacramento Calif	151	92	34	13	8	4	20
San Diego Calif	190	123	37	15	6	9	15
San Francisco Calif	182	111	35	30	4	2	8
San Jose Calif	188	121	42	14	4	7	12
Seattle Wash	166	101	35	17	8	5	5
Spokane Wash	50	40	8	2	-	-	3
Tacoma Wash	57	44	6	5	1	1	2
TOTAL	13,670 ††	8,859	2,884	1,120	361	443	699

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* Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

** Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages

§ Data not available. Figures are estimates based on average of past 4 weeks

Rubella – Continued

An analysis of CRS surveillance data in the United States indicates that nearly one-half of mothers delivering infants with CRS had a previous live birth (*11,12*). In this outbreak, five of eight rubella-susceptible mothers had had at least one previous pregnancy in the United States and had remained susceptible during a subsequent pregnancy that was complicated by rubella. Such women might have been immunized in the postpartum period following their earlier deliveries, and failure to do so represents missed opportunities for preventing five CRS births. These data suggest that postpartum vaccination could have a substantial impact on the occurrence of CRS.

While a survey of obstetric services in NYC indicates that serologic testing of pregnant women is universal, only 37% of obstetric departments have a protocol to insure postpartum vaccination of susceptible women (NYC Department of Health, unpublished data). In addition, although the New York State Health Code requires rubella screening and immunization of all hospital employees, the occurrence of cases in five separate medical facilities suggests the need for more stringent screening and/or immunization programs for employees in these hospitals.

The NYC Department of Health, in cooperation with CDC, has begun a Rubella Elimination Program, which will have as its first priorities the development and/or implementation of protocols requiring: 1) rubella screening of pregnant women and postpartum immunization in all NYC hospitals; and 2) rubella screening and immunization of hospital employees to achieve compliance with state law. The expense of implementing such rubella immunization programs loses significance when compared with the cost of ongoing outbreak control and the greater than $200,000 lifetime cost of a case of CRS (*13*).

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Dengue Hemorrhagic Fever — Puerto Rico

Dengue activity in Puerto Rico has increased substantially since August of 1986 (Figure 2). Of the 5,564 cases of suspected dengue reported in the first 10 months of the year, 4,640 (83%) occurred from August through October. Seven hundred and forty cases have been

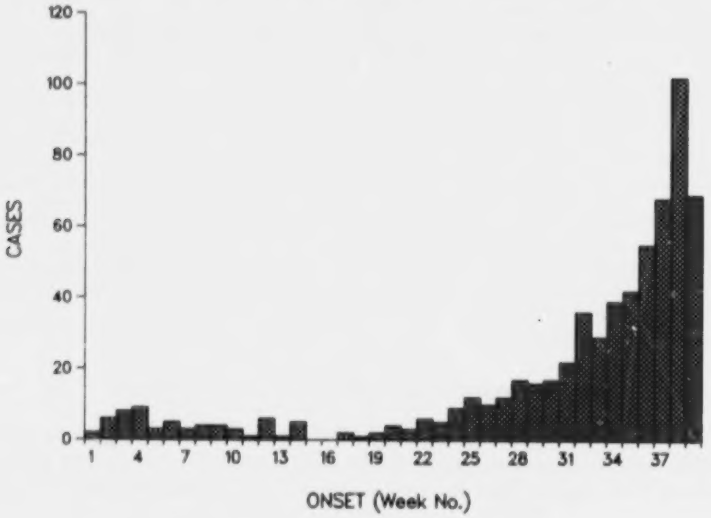
Dengue — Continued

virologically or serologically confirmed in 1986 (Table 3), compared with six cases in 1983, 11 cases in 1984, and 133 cases in 1985. The male to female ratio of confirmed cases for 1986 was 1:1, with all ages affected. Cases have been confirmed in 64 of the 78 Puerto Rican municipalities (82%).

Two hundred and eleven dengue viruses have been isolated in 1986, 152 (72%) during August, September, and October. Three dengue serotypes (DEN-1, DEN-2, and DEN-4) have been co-circulating in Puerto Rico since late 1985. In 1986, DEN-1 and DEN-4 have been the predominant serotypes island-wide (45% and 44% respectively), followed by DEN-2 (11%). Since August, however, most transmission has occurred in the San Juan metropolitan area (63% of confirmed cases), and DEN-4 has been the predominant serotype with 75 (49%) isolates, followed by DEN-1 with 58 isolates (38%) and DEN-2 with 19 isolates (13%).

Although the majority of cases have presented as classical dengue fever, 26% of patients with 356 laboratory-confirmed disease have reported at least one hemorrhagic manifestation. The most common of these have been petechiae, purpura/ecchymosis, bleeding of gums, hematuria, and thrombocytopenia. Moreover, hospitalization has increased, with 100 patients (14% of total) with confirmed dengue infection hospitalized. This is a hospitalization rate of 135/1,000 patients with confirmed dengue infection in 1986, compared with 75/1,000 in 1985 and 19/1,000 in 1982 during the last outbreak of DEN-4. As the hospitalization data suggest, there has been an increase in severe hemorrhagic disease associated with the outbreak. The rate of confirmed dengue hemorrhagic fever/dengue shock syndrome (DHF/DSS) per 1,000 persons with confirmed dengue infection was 14 in 1986, compared with 8/1,000 in 1985. Although the rates are still low, they represent a significant increase over previous years when epidemics were larger and there were no cases of DHF/DSS. Also, Puerto Rico has experienced its first virologically confirmed fatal case of DHF/DSS. To date in 1986, 12 cases of severe hemorrhagic disease have been confirmed virologically and/or serologically as dengue. Ten of these cases meet WHO clinical criteria for DHF/DSS; two patients did not have hemoconcentration but had severe upper gastrointestinal hemorrhage and thrombocytopenia.

FIGURE 2. Confimed cases of dengue, by week of onset, Puerto Rico, 1986



Dengue — Continued

The ten cases that meet WHO clinical criteria for DHF/DSS included six children (five infants less than 1 year of age) and four adults. The ratio of males to females was 1:1. There were four patients with dengue shock syndrome (three infants and one adult); two confirmed cases were fatal (one in a 30-year-old female and the other in a 6-month-old male). DEN-4 was isolated from the former, and DEN-2, from the latter. The most common hemorrhagic manifestations observed in patients with confirmed DHF/DSS were petechiae (five patients), hematemesis (five patients), and hematuria (three patients). In addition to the five patients above who had hematemesis, two other patients (one adult and one child) had severe upper gastrointestinal bleeding and thrombocytopenia in the absence of hemoconcentration.

Measures taken to control the outbreak include increased public education on eliminating mosquito larval habitats, initiating education programs in the public school system on environmental sanitation, and widespread application of insecticide with truck-mounted equipment. An emergency hospitalization plan has been developed, but has not yet been fully implemented.

Reported by Puerto Rico Dept of Health; Dengue Br, Div of Vector-Borne Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: The recent severe illnesses in Puerto Rico are clinically compatible with DHF/DSS in southeast Asia (*1*). Eleven confirmed cases since September 1985, have met WHO criteria for DHF/DSS with hemoconcentration and evidence of plasma leakage. Two other patients had severe upper gastrointestinal bleeding similar to that observed in Indonesia (*2*). Seven of the confirmed cases were in children—five of these were infants. In previous Puerto Rican epidemics, most severe disease was in adults (*3*).

Puerto Rico experienced its first reported dengue outbreak in 1915 (*4*). Subsequent outbreaks occurred in 1945, 1963, 1969, 1976, 1977, 1978, 1981, and 1982 (Dengue Branch, Division of Vector-Borne Viral Diseases, Center for Infectious Diseases, CDC, unpublished data). Laboratory-based surveillance for DHF/DSS began in 1975. From that time through 1985, 47,196 suspected cases of dengue were reported to the San Juan Laboratories. During the same time period, 19% of cases for which there were adequate laboratory specimens (8,816) were confirmed as dengue; and 230 (3%) of persons with confirmed cases were hospitalized. During 1986, 14% of the 5,564 persons with confirmed dengue infection have been hospitalized, and there have been 10 cases of confirmed DHF/DSS. Thus, both the reporting of severe dengue disease and the number of persons hospitalized with severe dengue disease have increased during 1986.

Some of the present increase in the number of reported dengue cases may relate to improved awareness. When The first fatal case of DHF/DSS in Puerto Rico occurred in August, it was followed by numerous press releases, and clean-up campaigns were initiated. In general, the awareness of dengue in both lay and medical communities has increased. The monthly proportion of patients hospitalized with confirmed cases, however, remained stable, even

TABLE 3. Laboratory confirmed cases of dengue by age, sex, virus type, and serologic response — Puerto Rico, October 31, 1986

	Sex*		Virus type			Serologic response		
Age	**Male**	**Female**	**DEN-1**	**DEN-2**	**DEN-4**	**Primary**	**Secondary**	**Unknown**
0-4	23	26	4	1	2	14		35
5-9	29	37	8	5		5	33	28
10-14	59	40	15	4	8	16	36	47
15-19	50	45	13	3	18	18	27	50
20+	198	200	53	10	64	41	152	205
Unknown	9	13	3			4	11	7
Total	**368**	**361**	**96**	**23**	**92**	**98**	**259**	**372**

*Does not include five cases with no information on age and sex.

Dengue — Continued

after the fatality was announced. Moreover, the confirmation rate for dengue began to increase in June (weeks 24 through 25 of the outbreak), 2 months before the response to the press campaign.

Because the 1978 and 1981 dengue outbreaks in Puerto Rico were caused by DEN-1 and the 1982 outbreak was caused by DEN-4, it was considered unlikely that the present outbreak would be very large. DEN-2 is also being transmitted in Puerto Rico, and recent virus isolation data suggest that transmission of this serotype may be increasing. Since the last major epidemic of DEN-2 was in 1976-1977, a large number of individuals in Puerto Rico (mainly children) are susceptible to this virus. Furthermore, studies by CDC on school children in Puerto Rico have shown that by the first grade, 30% to 50% of school children have serologic evidence of a past dengue infection.

Evidence from Thailand and Cuba suggests that secondary DEN-2 infection following DEN-1 infection at a 3- to 5-year interval may be a risk factor for epidemic DHF/DSS. If this is true, Puerto Rico is at increased risk for an epidemic of DHF/DSS. Moreover, with the cocirculation of multiple serotypes, the epidemiologic situation in Puerto Rico is now very similar to that in many southeast Asian countries where DHF/DSS is endemic.

Currently, a major effort is being made to control the vector mosquito, *Aedes aegypti*. The integrated approach being used includes community-based source reduction, insecticide application, and health education.

Risk of dengue infection for travelers to endemic areas appears to be small. However, travelers to and residents of endemic areas should take precaution to avoid mosquito bites and to remain in well-screened areas when possible. Outdoors, exposures to mosquitoes can be reduced by wearing clothing that adequately covers the arms and legs and by applying mosquito repellent.

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Update: Influenza Activity — United States, Worldwide

United States

On November 6, a 62-year-old resident of Tucson, Arizona, had onset of a febrile respiratory illness with exacerbation of his underlying chronic obstructive pulmonary disease. He was hospitalized on November 7, and a nasopharyngeal swab was collected on the day of admission. Type A influenza virus was confirmed by rapid indirect fluorescent antibody staining, and treatment with amantadine began on the same day. The patient recovered from his acute respiratory illness and was discharged to another hospital for treatment of an unrelated problem. He had not traveled before his illness, and influenza had not been previously identified in Arizona this season. Subsequent testing identified the virus isolate as type A(H3N2). This is the first report of this subtype from the United States this season.

Influenza – Continued

Eighteen states and the District of Columbia have now reported isolates of type A(H1N1) influenza virus (Figure 3). Most isolates have been obtained from children and young adults. Two states, California and Texas, have reported isolates of type B influenza from sporadically occurring cases.

Worldwide

USSR. Reports from the USSR indicate that during the last week of October acute respiratory disease morbidity reached epidemic levels in 43% of USSR cities (26 of 60) that have surveillance for influenza-like illness. Influenza A(H1N1) and A(H3N2) viruses have been isolated in some cities in the USSR, and there is also preliminary serological evidence of influenza B virus in the country.

Other Reports. In September, an outbreak in a boys' boarding school in England affected about one-third of the students. The outbreak ended within 10 days; influenza A(H1N1) virus was isolated from one student. In November, isolates of A(H1N1) were reported in association with sporadically occurring cases in the German Democratic Republic, the Federal Republic of Germany, and the Democratic Peoples Republic of Korea. Serologic testing implicated influenza A(H1N1) in sporadically occurring cases in France and Norway during November and in outbreaks of influenza-like illness in Jamaica during October.

Influenza type A(H3N2) has been reported in association with sporadically occurring cases in the Democratic Peoples Republic of Korea.

Between late September and early November, influenza B virus was isolated from three children during an outbreak in Panama and from two patients with sporadically occurring cases in Senegal. Serologic testing has also implicated influenza B in sporadically occurring cases in France.

In Turkey, widespread outbreaks of clinically diagnosed influenza among children have forced some schools to close.

Reported by State and Territorial Epidemiologists; State Laboratory Directors; E Petersen, MD, L Minnich, G Ray, MD, University Medical Center, Tucson, Arizona; G Meiklejohn, MD, University of Colorado Medical Center; J Critchon, MD, Helena, Montana; National Influenza Centers, Microbiology and Immunology Support Svcs, World Health Organization, Geneva; AN Slepushkin, V Zdhanov, Ivanovsky Institute of Virology, Academy of Medical Sciences of the USSR, Moscow; WHO Collaborating Center for Influenza, Influenza Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

FIGURE 3. States reporting isolates of influenza virus type A(H1N1) — United States, October 1, 1986-December 13, 1986

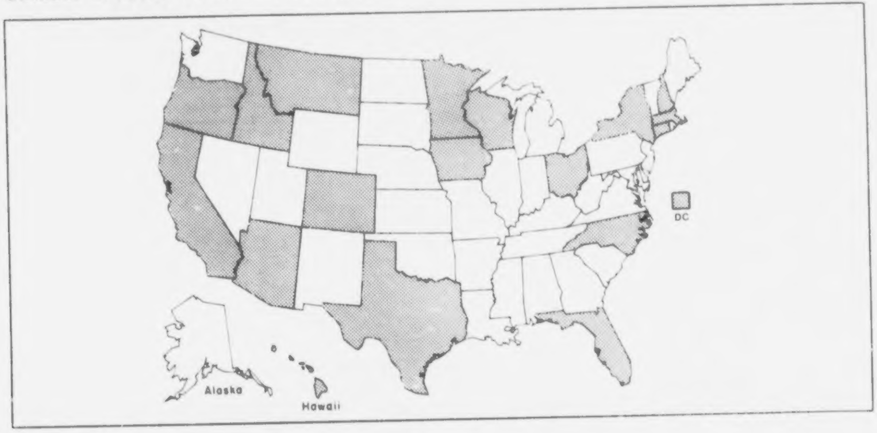
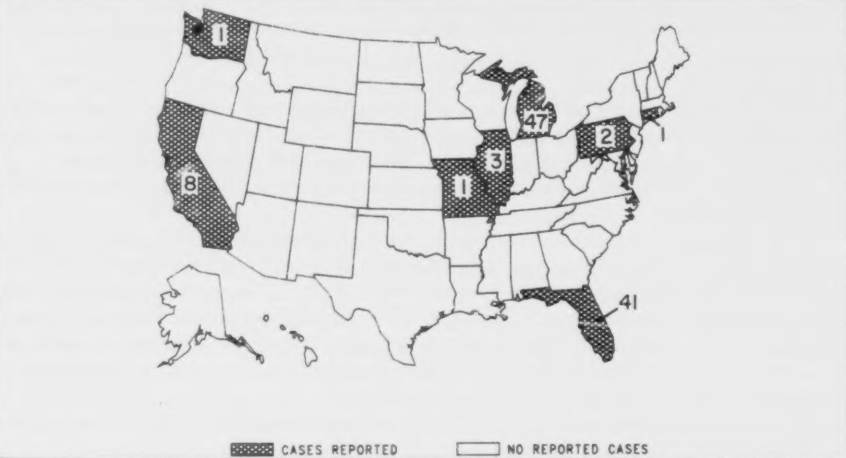


FIGURE I. Reported measles cases — United States, weeks 46-49, 1986



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report,* Centers for Disease Control, Atlanta, Georgia 30333.

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CENTERS FOR DISEASE CONTROL

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MMWR

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788 Drinking and Driving and Binge Drinking in Selected States, 1982 and 1985 — The Behavioral Risk Factor Surveys
797 Regional Workshop on Dracunculiasis in Africa

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Epidemiologic Notes and Reports

Multi-Drug-Resistant Tuberculosis — North Carolina

A 32-year-old male presented at a hospital emergency room on March 31, 1984, complaining of nausea and vomiting, abdominal pain, headache, and neck stiffness. He was admitted and a tentative diagnosis of viral encephalitis was made. His condition rapidly deteriorated; he became comatose and was transferred to another hospital 4 days later for further evaluation and treatment. A lumbar puncture on April 3 revealed bright yellow cerebrospinal fluid (CSF) with 3.8 g/dl protein, 37 mg/dl glucose, 118 rbc's, and 311 wbc's (100% mononuclear cells). A computerized tomography scan of the head showed marked hydrocephalus. The chest radiograph revealed bilateral lower lobe infiltrates and a mass in the left hilar area. The patient's condition worsened, and he died on April 20, 1984.

Autopsy findings revealed basilar meningitis, extensive acute encephalomalacia of the basal ganglia and brain stem, obstructive hydrocephalus, and left hilar lymph node caseation and necrosis. Staining of material from the brain demonstrated acid-fast organisms in isolated necrotic foci. On July 18, 1984, the North Carolina State Laboratory reported identification of *Mycobacterium tuberculosis* from a brain-tissue-culture specimen taken at autopsy. On August 15, 1984, the laboratory reported identification of *M. tuberculosis* from a culture of the CSF obtained on April 3. Drug-susceptibility studies showed the organism to be resistant to isoniazid (INH), rifampin (RIF), ethambutol (EMB), and streptomycin (SM).

The patient received no anti-tuberculosis drugs while hospitalized. Both the patient and his family gave no history of treatment for tuberculosis. A review of the tuberculosis records systems in North Carolina and South Carolina also revealed no history of prior treatment for tuberculosis.

Subsequent investigation revealed that the patient had resided in North Carolina for approximately 1 year immediately preceding his death. During this time, he was in contact with three other persons with infectious, drug-resistant tuberculosis. Two of these persons had *M. tuberculosis* isolates with the same pattern of quadruple drug resistance. Table 1 shows the dates of the patients' first TB diagnosis in chronological order. Three of the four patients died from tuberculosis. Patient 4 had the fatal meningitis case reported here.

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Tuberculosis – Continued

The four patients knew one another and had interacted closely. Patients 1 and 2 were living together in May 1978 when Patient 1 was first diagnosed with tuberculosis. Patient 3, until his death, was the proprietor of an entertainment establishment often frequented by the other three. From about June 1983 until April 1984, Patients 1 and 4 lived in adjoining apartments in a small, four-unit converted house. Both had a history of alcohol abuse.

The available information suggests that Patient 1 transmitted quadruple-drug-resistant organisms to Patient 4 between June 1983 and February 1984. Progression from infection to disease was rapid and resulted in fatal tuberculous meningitis in less than 1 year.

After the initial diagnoses, the first three cases were difficult to manage because of the patients' alcohol abuse and the drug-resistant nature of the infections. Cumulatively, Patients 1, 2, and 3 were admitted 14 times to state tuberculosis hospitals. They continued to have positive smears and cultures and were lost to followup for long periods.

The treatment of Patients 1 and 3 was further complicated by delayed, conflicting, or possibly overlooked laboratory reports. Multiple medical providers and laboratories were involved in their care, and a review of records suggests that information may not have been uniformly shared.

Ten contacts of Patient 1 were evaluated with a Mantoux tuberculin skin test during 1978. Patient 2 was the only person with a significant skin-test reaction (> 10 mm) found among these contacts, and she was not put on tuberculosis preventive therapy. Within the following year, she developed disease, which subsequently was found to be resistant to INH, EMB, and SM, suggesting that she was infected by Patient 1 when he had not yet acquired resistance to RIF. Among her five contacts, one reactor was found and was started on INH preventive therapy.

During October 1980, 13 close contacts of Patient 3 were tested, and six, including his wife and two children, had a significant reaction. Four of the six were started on INH preventive therapy. Fifty-four contacts who worked with Patient 3 were also tuberculin tested, and seven of these had significant reactions.

From October 1984 through December 1985, there was extensive contact investigation around the four cases. Over 415 contacts were evaluated in North Carolina, South Carolina, and the District of Columbia. Fifty-six contacts had significant skin-test reactions. Twenty-nine of these reactors were started on INH preventive therapy. Although no new cases of tuberculosis (disease) were found as a result of contact investigations, a brother of Patient 2, living in Washington, D.C., was diagnosed with pulmonary tuberculosis in June 1984. Susceptibility tests showed the brother's organisms to be resistant to INH and SM.

TABLE 1. Clinical/laboratory data on four tuberculosis patients — North Carolina

Patient no.	Sex	Date of first TB diagnosis	Age at diagnosis	Date of death	Date of last positive culture[*]	Specimen type	Organism resistant to[†]
1	M	5-78	49	5-2-84	4-30-84	Sputum	INH,RIF,EMB,SM
2	F	7-79	47	Alive	8-7-84	Sputum	INH,EMB,SM[§]
3	M	9-80	34	4-5-85	11-26-83	Sputum	INH,RIF,EMB,SM
4	M	4-84	32	4-20-84	4-3-84	CSF	INH,RIF,EMB,SM

[*] Date last specimen was obtained on which drug susceptibility tests were done.

[†] Organisms from three patients were 100% resistant to the drugs listed. Those from Patient 2 were 100% resistant only to INH.

[§] Isolate was susceptible to RIF.

Tuberculosis — Continued

Reported by JA Jones, RV Berry, MD, K Scott, MD, M Swift, Tuberculosis Control Br, JN MacCormack, MD, State Epidemiologist, Div of Health Svcs, North Carolina Dept of Human Resources; RC Baxley, C Boner, Davidson County Health Dept; C Pozsik, Tuberculosis Control Div, R Parker, DVM, State Epidemiologist, South Carolina Dept of Health and Environmental Control; H Swann, MD, Div of Tuberculosis Control, M Levy, MD, State Epidemiologist, Bur of Preventive Svcs, District of Columbia Dept of Human Svcs; Div of Tuberculosis Control, Center for Prevention Svcs, CDC.

Editorial Note: Transmission of drug-resistant tuberculosis in families and households (*1*) and in a shelter for the homeless (*2*) has been previously documented, and community outbreaks of drug-resistant tuberculosis have been reported in Mississippi (*3*) and in California, Montana, Nevada, and Utah (*4*). Although phage typing was not done in this investigation, the epidemiologic evidence and similar patterns of drug resistance suggest that Patient 1 (who ultimately died) infected Patients 2 and 4 with multi-drug-resistant tuberculosis and may have infected Patient 3; two additional deaths resulted. Noncompliance with therapy recommendations as well as poor communication among health care providers in various institutional settings contributed to treatment failures in Patients 1, 2, and 3.

This report calls attention to the problems that drug-resistant disease continues to pose to contemporary tuberculosis control programs. To address these problems, tuberculosis control programs should emphasize the following when monitoring *all* tuberculosis patients:

- continuity and completion of therapy, including direct observation of therapy for patients who are unwilling or unable to take an unsupervised course of therapy;
- effective communication among all health care providers, both within and outside of the health department;
- careful surveillance of mycobacteriology laboratory reports; and
- thorough contact investigations surrounding each case of tuberculosis.

One of the purposes of most tuberculosis contact investigations is to identify persons infected with tuberculosis so that they can be evaluated for preventive therapy. The current standard preventive therapy regimen is INH for 6 to 12 months. In the case of INH-resistant tuberculosis, preventive therapy with 1 year of RIF or INH is considered an acceptable option since INH may be effective *in vivo* even in the case of laboratory failure (*5*). However, the contacts in this episode may have been infected with organisms resistant to both INH and RIF, in which case INH and/or RIF preventive therapy would probably not have been effective in preventing disease. These contacts then are at risk of developing drug-resistant disease in the future and of transmitting drug-resistant organisms to others. Health departments should establish special surveillance for such contacts. Certainly, the further spread of these quadruply resistant organisms should be prevented.

This report also points out the need for a readily available, rapid diagnostic test for tuberculosis. There was a 4-month hiatus between culturing the CSF from Patient 4 and the report of drug-resistant *M. tuberculosis*. Faster laboratory techniques for culturing and obtaining drug susceptibility results might have enabled providers to diagnose tuberculosis and institute appropriate therapy early enough to prevent this patient's death.

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Perspectives in Disease Prevention and Health Promotion

Drinking and Driving and Binge Drinking in Selected States, 1982 and 1985 — The Behavioral Risk Factor Surveys

During the period 1981-1983, behavioral risk factor surveys were conducted in 28 states and the District of Columbia (*1*). The surveys were designed to gather data on the prevalence of specific behavioral risk factors in the adult population (>18 years of age) in each state. Since 1984, several states have been collecting risk factor data on a monthly basis as part of the Behavioral Risk Factor Surveillance System. The following analysis was based on the 12 states ("states" includes the District of Columbia) that collected data on drinking and driving and/or binge drinking for 1982 and 1985.

For the purposes of this analysis, the prevalences of drinking and driving and of binge drinking were based on the percentage of persons selecting the answer "One or more times" when asked the following questions:

- For drinking and driving: "During the past month, how many times have you driven when you've had *perhaps* too much to drink?"
- For binge drinking: "Considering all types of alcoholic beverages, that is beer, wine, liquor, as drinks, how many times during the past month did you have five or more drinks on an occasion?"

Ten of the 12 states that gathered data on binge drinking in 1982 and 1985 also gathered data on drinking and driving. Table 2 shows the prevalence of drinking and driving, by age and sex, in 1982 and 1985 for these 10 states. Table 3 shows the prevalence of binge drinking by age and sex in 1982 and 1985 for all 12 states. The Wilcoxon Signed Rank Test for paired measurements* (*2*) was used to evaluate observed changes in the prevalence of drinking and driving and binge drinking in this group of states.

All states reporting drinking and driving data showed a decrease in that behavior among males 35 to 54 years of age between 1982 and 1985 (decrease = 10/10). However, the decrease was not consistent among either males 18 to 34 years of age (5/10) or males ≥55 years of age (5/10). For both years, women had lower prevalences than men, but the proportion of states showing a decrease in drinking and driving among women was not statistically significant for any of the three age groups.

Between 1982 and 1985, a significant proportion ($p = < .05$) of the 12 states reporting binge drinking data showed a decrease in the prevalence of binge drinking among men 18 to 34 years of age (10/12) and men 35 to 54 years of age (10/12). A majority of states showed a decrease in binge drinking among men ≥55 years of age (8/12), but this change was not statistically significant. A majority of states also showed a decrease in binge drinking for

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*This non-parametric test was used to assess the likelihood that the observed proportion of states showing a decrease in the prevalence of self-reported drinking and driving and of binge drinking between 1982 and 1985 could have happened by chance alone.

Drinking and Driving – Continued

women in each age group, but this decrease was statistically significant (p = <.01) only among women 18 to 34 years of age.

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TABLE 2. Drinking and driving prevalences (percentages), by sex, age, and state — 1982 and 1985 Behavioral Risk Factor Surveys

Age:	18-34			35-54			55+		
State	1982	1985	Change	1982	1985	Change	1982	1985	Change
	Males								
Arizona	11.3	18.6	7.3	5.1	1.4	-3.7	0.6	1.7	1.1
California	15.6	8.4	-7.2	8.6	4.8	-3.9	1.3	0.0	-1.3
District of Columbia	2.6	4.1	1.5	4.8	3.4	-1.4	1.5	0.0	-1.5
Florida	12.9	8.3	-4.7	5.6	3.9	-1.7	1.2	1.2	0.0
Georgia	8.8	12.4	3.6	9.6	4.8	-4.8	1.5	0.0	-1.5
Indiana	13.1	11.9	-1.2	5.9	3.6	-2.3	0.0	0.8	0.8
Kentucky	5.1	5.0	-0.1	2.6	0.8	-1.8	1.1	0.9	-0.1
North Carolina	10.5	12.3	1.8	6.0	2.4	-3.6	0.0	0.7	0.7
Tennessee	6.4	3.7	-2.7	5.8	3.0	-2.8	2.2	0.0	-2.2
West Virginia	7.7	12.2	4.5	1.5	1.1	-0.4	0.0	0.3	0.3
	N=10, T*=25, N.S.			N=10, T*=0, p<0.01			N=9, T*=14, N.S.		
	Females								
Arizona	4.9	4.6	-0.3	1.1	1.9	0.8	0.3	0.0	-0.3
California	6.1	2.5	-3.5	3.4	1.1	-2.3	0.0	0.0	0.0
District of Columbia	1.2	3.1	1.9	1.2	1.0	-0.2	0.0	2.5	2.5
Florida	0.0	6.8	6.8	2.7	0.3	-2.3	0.0	0.0	0.0
Georgia	7.2	0.9	-6.4	1.9	2.3	0.4	0.0	0.0	0.0
Indiana	3.5	2.9	-0.6	2.6	0.9	-1.7	0.0	0.0	0.0
Kentucky	4.1	1.9	-2.2	0.0	0.3	0.3	0.0	0.0	0.0
North Carolina	10.3	2.7	-7.6	0.0	0.7	0.7	0.0	0.0	0.0
Tennessee	1.5	2.4	0.9	0.0	0.3	0.3	0.0	0.0	0.0
West Virginia	2.2	0.8	-1.4	1.5	0.3	-1.2	0.0	0.0	0.0
	N=10, T*=17, N.S.			N=10, T*=20, N.S.			N=2, T*=undefined, N.S.		

*Signed-rank T statistic.

Drinking and Driving – Continued

Editorial Note: No comparison data are available to indicate whether the downward changes in self-reported drinking and driving and binge drinking prevalences for these selected states reflect similar changes at the national level. More of the reporting states showed a decrease in the prevalence of binge drinking than in the prevalence of drinking and driving. For men and women of all ages, the prevalence of binge drinking decreased in a majority of the states. By contrast, only for men 35 to 54 years of age and women 18 to 34 years of age did a significant majority of states show a decrease in the prevalence of drinking and driving.

Caution must be exercised in interpreting changes based on the self-reported behaviors from these states. The apparent decreases in binge drinking and in drinking and driving may reflect real decreases in the prevalence of these behaviors in the populations surveyed. However, these changes could also be artifactual, due either to seasonal bias in the surveys done

TABLE 3. Binge drinking prevalences (percentages), by sex, age, and state — 1982 and 1985 Behavioral Risk Factor Surveys

Age:	18-34			35-54			55+		
State	1982	1985	Change	1982	1985	Change	1982	1985	Change
					Males				
Arizona	43.7	42.5	-1.2	28.3	20.4	-8.0	13.3	10.7	-2.6
California	48.6	35.4	-13.2	31.4	23.8	-7.6	13.9	9.9	-4.0
District of Columbia	30.0	23.4	-6.6	27.7	26.8	-0.9	9.1	7.4	-1.7
Florida	51.9	38.8	-13.1	27.2	29.2	1.9	21.7	12.1	-9.5
Georgia	32.4	41.2	8.8	25.8	21.3	-4.4	6.4	9.2	2.8
Indiana	51.9	47.9	-4.0	32.4	23.5	-9.0	21.3	11.6	-9.7
Kentucky	36.9	14.9	-22.0	18.2	14.0	-4.3	3.8	7.6	3.9
Montana	65.9	46.7	-19.3	35.5	28.6	-6.9	19.6	17.5	-2.1
North Carolina	35.8	34.3	-1.5	24.9	13.2	-11.7	6.1	7.6	1.4
Ohio	49.3	48.6	-0.6	27.4	24.8	-2.6	8.4	12.3	3.9
Tennessee	34.3	16.4	-18.0	21.5	8.0	-13.5	6.1	3.5	-2.5
West Virginia	31.1	36.9	5.8	15.4	17.5	2.2	9.9	4.4	-5.5
	N=12, T*=12, P < 0.05			N=12, T*=5, p<0.01			N=12, T*=22, N.S.		
					Females				
Arizona	21.1	18.0	-3.1	8.3	9.1	0.8	4.1	3.7	-0.4
California	19.3	13.7	-5.7	13.3	8.8	-4.6	3.1	3.9	0.8
District of Columbia	14.3	17.0	2.7	12.1	11.2	-0.9	5.1	1.9	-3.2
Florida	19.7	16.0	-3.7	14.1	8.3	-5.8	4.2	4.0	-0.2
Georgia	16.6	5.7	-11.0	10.1	6.2	-3.9	0.9	0.0	-0.9
Indiana	13.7	14.9	1.2	8.2	8.1	-0.1	2.6	1.0	-1.5
Kentucky	15.0	11.1	-3.9	5.6	2.8	-2.8	0.0	0.0	0.0
Montana	25.2	19.6	-5.6	9.6	8.5	-1.1	3.2	3.0	-0.3
North Carolina	17.9	9.0	-8.9	1.5	2.8	1.3	4.0	0.9	-3.2
Ohio	20.8	19.2	-1.6	4.1	3.6	-0.5	1.9	2.2	0.3
Tennessee	7.1	5.0	-2.1	2.0	1.6	-0.4	0.3	0.4	0.1
West Virginia	14.7	11.6	-3.1	3.7	4.6	0.9	1.4	1.7	0.2
	N=12, T*=5, P < 0.01			N=12, T*=17.5, N.S.			N=11, T*=15, N.S.		

*Signed-rank T statistic.

in 1982 or to differences between the 1982 and 1985 surveys caused by non-response or under-reporting.

The 1982 surveys were conducted during a 1- to 6-week interviewing period. In contrast, the 1985 data were gathered during a 7-day period each month and then aggregated at year's end to eliminate the potential effect of seasonality on health risk behaviors. However, because the 1982 surveys were conducted across all seasons of the year, seasonality is an unlikely explanation for the changes observed between these two sets of surveys.

Non-response and under-reporting could have affected these results. Analysis reveals lower response rates for the 1985 surveys than for the 1982 surveys in these states. It is possible that non-responders are more likely than responders to engage in these behaviors. In addition, the apparent decrease in self-reported drinking and driving or binge drinking may have resulted from greater under-reporting of these socially undesirable behaviors in the 1985 surveys. If this were the case, however, one might expect to see relatively greater decreases in drinking and driving, which is more socially undesirable than binge drinking and has been the focus of universal public interest.

If an actual decrease in these behaviors has occurred, it could be due, in part, to legislative efforts within the states to raise the drinking age as well as to increased enforcement of laws against driving while under the influence of alcohol. It could also be a result of limiting the number of free drinks establishments can provide to customers during "happy hour" or of changes in the social desirability of these behaviors brought on by the activities of groups such as Mothers Against Drunk Driving. The fact that a greater proportion of states has shown a decrease in the prevalence of binge drinking compared with drinking and driving suggests that persons still reporting the latter behavior may be more resistant to change.

Young males (18 to 34 years of age) continue to show the highest prevalence of both drinking and driving and binge drinking. Between 1982 and 1985, neither binge drinking nor drinking and driving decreased significantly for 18- to 34-year-old males. Therefore, to prevent alcohol-related injuries and death, young males should remain a priority target group for public health intervention.

References

1. Marks JS, Hogelin GC, Gentry EM, et al. The behavioral risk factor surveys: I. state-specific prevalence estimates of behavioral risk factors. Am J Prev Med 1985;1(6):1-8.
2. Snedecor GW, Cochran WG. Statistical methods. 6th ed. Ames, Iowa: The Iowa State University Press, 1967:128-30.

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	51st Week Ending			Cumulative, 51st Week Ending		
	Dec. 20, 1986	Dec., 21, 1985	Median 1981-1985	Dec. 20, 1986	Dec. 21, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	373	175	N	12,777	7,828	N
Aseptic meningitis	150	159	132	10,421	10,158	9,524
Encephalitis: Primary (arthropod-borne & unspec.)	22	21	22	1,192	1,285	1,500
Post-infectious	2	1	1	97	115	95
Gonorrhea: Civilian	16,443	16,281	16,281	870,147	870,180	883,944
Military	312	339	380	16,641	20,144	23,534
Hepatitis: Type A	523	472	416	22,300	22,515	22,515
Type B	483	564	524	25,022	25,773	23,654
Non A, Non B	44	76	N	3,370	3,986	N
Unspecified	71	105	151	4,274	5,641	7,102
Legionellosis	14	18	N	792	752	N
Leprosy	7	4	3	253	350	237
Malaria	15	20	9	1,064	1,008	1,008
Measles: Total*	84	9	9	6,216	2,735	2,557
Indigenous	83	9	N	5,913	2,299	N
Imported	1	-	N	297	436	N
Meningococcal infections: Total	49	49	50	2,384	2,357	2,641
Civilian	49	49	50	2,382	2,350	2,625
Military	-	-	-	2	7	13
Mumps	220	50	58	5,568	2,893	3,295
Pertussis	28	72	58	4,071	3,478	2,218
Rubella (German measles)	2	8	12	485	613	947
Syphilis (Primary & Secondary): Civilian	539	725	579	26,618	26,401	30,435
Military	-	3	3	160	156	360
Toxic Shock syndrome	6	5	N	339	358	N
Tuberculosis	534	553	494	21,610	21,147	23,095
Tularemia	5	2	3	165	175	278
Typhoid fever	5	12	10	311	381	393
Typhus fever, tick-borne (RMSF)	2	2	2	746	687	980
Rabies, animal	47	85	68	5,192	5,279	5,788

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1986		Cum. 1986
Anthrax	-	Leptospirosis (Hawaii 1)	40
Botulism: Foodborne	18	Plague (N.Mex 1)	10
Infant (Calif. 2)	69	Poliomyelitis, Paralytic (Fla. 1)	2
Other	1	Psittacosis (La. 1, Wash. 1)	93
Brucellosis (Mo. 2, Fla. 1, N.Mex. 1, Utah 1, Calif. 1)	84	Rabies, human	-
Cholera	17	Tetanus	61
Congenital rubella syndrome	11	Trichinosis (N.J. 1)	32
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	48
Diphtheria	-		

*One of the 84 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending December 20, 1986 and December 21, 1985 (51st Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	12,777	150	1,192	97	870,147	870,180	523	483	44	71	14	253
NEW ENGLAND	492	5	32	3	23,502	22,150	9	35	2	6	1	8
Maine	20	-	4	-	825	1,127	-	6	-	-	-	-
N H	13	-	2	-	573	568	-	5	-	-	-	-
Vt	5	2	4	2	263	333	-	1	-	-	-	-
Mass	272	2	6	-	8,447	9,284	9	17	2	5	1	8
R I	34	-	-	-	1,800	1,834	-	1	-	-	-	-
Conn	148	1	16	1	11,594	9,004	-	5	-	1	-	-
MID ATLANTIC	4,722	1	107	10	154,213	126,988	24	10	-	13	-	20
Upstate N Y	492	-	36	6	18,440	17,769	24	9	-	2	-	1
N Y City	3,182	1	20	1	89,440	61,945	-	1	-	11	-	18
N J	745	-	10	-	19,915	19,362	-	-	-	-	-	-
Pa	303	-	41	3	26,418	27,912	-	-	-	-	-	1
E N CENTRAL	765	35	365	11	112,609	113,211	31	52	2	2	5	5
Ohio	154	11	138	3	29,827	30,979	13	27	2	-	4	-
Ind	67	U	82	3	12,131	12,504	U	U	U	U	U	-
Ill	363	-	50	4	25,858	25,910	4	5	-	-	-	4
Mich	139	24	61	1	37,138	32,917	14	20	-	2	1	1
Wis	42	-	34	-	7,403	10,901	-	-	-	-	-	1
W N CENTRAL	233	1	90	9	37,358	40,671	9	11	3	2	-	4
Minn	88	-	40	-	5,359	5,936	6	7	1	-	-	2
Iowa	20	1	27	-	3,813	4,260	-	2	1	-	-	-
Mo	73	-	3	-	18,421	19,797	-	2	1	-	-	-
N Dak	3	-	4	-	304	274	-	-	-	-	-	-
S Dak	2	-	11	-	767	779	1	-	-	-	-	-
Nebr	11	-	2	1	2,793	3,486	1	-	-	-	-	-
Kans	36	-	3	8	5,901	6,139	1	-	-	2	-	2
S ATLANTIC	1,847	41	153	39	226,059	227,786	36	123	4	6	6	4
Del	23	1	6	-	3,688	4,381	-	-	-	-	-	-
Md	180	2	35	1	26,497	29,033	5	16	-	1	2	-
D C	239	-	1	1	16,785	15,522	-	2	-	-	-	-
Va	152	7	43	1	18,618	18,901	3	10	2	1	-	1
W Va	8	1	46	-	2,159	2,541	3	4	-	-	-	-
N C	79	3	18	2	35,464	36,145	1	19	-	2	2	-
S C	50	1	-	-	19,016	21,208	3	16	-	1	1	-
Ga	285	4	-	1	37,467	43,944	3	15	-	-	-	-
Fla	831	22	4	33	66,365	56,111	18	41	2	1	1	3
E S CENTRAL	157	11	68	4	69,072	75,312	3	30	1	-	1	1
Ky	28	1	32	1	7,668	8,654	-	5	-	-	-	-
Tenn	73	2	8	1	26,033	29,050	-	14	1	-	-	-
Ala	29	7	27	2	20,283	22,506	1	9	-	-	-	1
Miss	27	1	1	-	15,088	15,102	2	2	-	-	1	-
W S CENTRAL	1,173	40	187	8	99,895	109,637	39	48	4	14	-	25
Ark	29	3	-	4	9,487	10,218	1	1	1	-	-	1
La	153	1	19	-	17,401	20,507	3	5	-	-	-	1
Okla	41	2	22	-	11,503	12,214	2	5	-	-	-	-
Tex	950	34	146	4	61,504	66,698	33	37	3	14	-	23
MOUNTAIN	341	7	40	1	25,483	27,552	68	47	3	5	1	13
Mont	5	-	1	1	660	785	1	-	-	-	-	-
Idaho	3	-	-	-	858	970	2	5	-	-	1	-
Wyo	4	-	2	-	518	621	-	-	-	-	-	-
Colo	166	5	5	-	6,550	7,972	9	5	-	4	-	3
N Mex	25	-	3	-	2,728	3,074	13	6	-	-	-	-
Ariz	81	2	19	-	8,171	8,473	41	21	2	-	-	7
Utah	20	-	8	-	1,093	1,323	1	4	1	1	-	1
Nev	37	-	2	-	4,905	4,334	1	6	-	-	-	2
PACIFIC	3,047	9	150	12	121,958	126,873	304	127	25	23	-	173
Wash	153	1	15	-	8,694	9,861	108	41	3	8	-	17
Oreg	62	-	-	-	5,318	6,305	32	18	6	-	-	-
Calif	2,766	6	127	12	104,333	105,992	147	66	16	15	-	117
Alaska	13	-	7	-	2,593	3,072	17	4	-	-	-	-
Hawaii	53	2	1	-	1,272	1,643	-	-	-	-	-	38
Guam	-	-	-	-	218	192	-	-	-	-	-	1
P R	115	1	5	1	2,343	3,045	-	4	-	1	-	7
V I	4	U	-	-	259	391	U	U	U	U	U	-
Pac Trust Terr	-	-	-	-	480	766	-	-	-	2	-	63
Amer Samoa	-	-	-	-	59	-	-	-	-	-	-	3

N Not notifiable U Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 20, 1986 and December 21, 1985 (51st Week)

Reporting Area	Malaria	Measles (Rubeola) Indigenous		Measles (Rubeola) Imported *		Measles (Rubeola) Total	Menin-gococcal Infections	Mumps		Pertussis			Rubella		
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	1,064	83	5,913	1	287	2,735	2,384	220	5,568	28	4,071	3,478	2	485	613
NEW ENGLAND	65	-	88	-	16	126	168	2	70	4	179	214	-	9	14
Maine	2	-	12	-	1	1	29	-	-	-	2	9	-	-	-
N.H.	4	-	43	-	-	-	6	-	14	2	84	113	-	1	3
Vt.	2	-	-	-	-	-	19	1	5	-	3	4	-	1	-
Mass.	33	-	24	-	13	118	50	1	15	1	57	54	-	4	7
R.I.	8	-	2	-	-	-	23	-	13	1	7	22	-	2	-
Conn.	16	-	7	-	2	7	41	-	23	-	26	12	-	1	4
MID ATLANTIC	145	70	1,940	-	37	232	372	2	215	7	221	267	-	37	234
Upstate N.Y.	51	-	77	-	24	85	135	-	73	6	140	130	-	27	21
N.Y. City	31	70	931	-	6	79	71	-	29	-	10	29	-	5	188
N.J.	37	-	906	-	5	28	30	1	53	-	20	12	-	5	11
Pa.	26	-	26	-	2	40	136	1	60	1	51	96	-	-	14
E.N. CENTRAL	61	-	1,123	-	28	582	366	58	3,555	1	386	834	-	50	38
Ohio	19	-	-	-	10	60	143	7	143	-	167	120	-	1	-
Ind.	2	U	27	U	11	57	39	U	90	U	36	201	U	-	1
Ill.	16	-	705	-	4	346	81	37	2,597	1	38	86	-	39	20
Mich.	20	-	107	-	-	60	78	12	442	-	38	51	-	8	16
Wis.	4	-	284	-	3	59	24	2	283	-	106	376	-	2	1
W.N. CENTRAL	32	-	324	1	18	13	113	38	220	-	1,408	267	-	14	19
Minn.	10	-	45	1†	5	6	24	24	44	-	48	135	-	1	2
Iowa	1	-	133	-	1	-	11	11	84	-	19	34	-	1	1
Mo.	12	-	28	-	6	4	41	1	26	-	24	35	-	1	7
N. Dak.	-	-	25	-	1	2	1	-	4	-	5	10	-	1	2
S. Dak.	2	-	-	-	-	-	5	-	1	-	14	11	-	-	-
Nebr.	4	-	1	-	-	-	12	-	2	-	10	11	-	-	-
Kans.	3	-	94	-	5	1	19	2	59	-	1,288	31	-	10	7
S. ATLANTIC	128	-	790	-	57	342	430	8	258	8	781	566	-	12	56
Del.	1	-	1	-	-	-	8	-	1	-	227	2	-	-	2
Md.	14	-	26	-	9	115	49	1	31	2	167	324	-	1	6
D.C.	5	-	-	-	2	31	6	-	1	-	-	-	-	-	-
Va.	34	-	36	-	24	28	76	1	46	1	56	21	-	-	2
W. Va.	4	-	2	-	-	33	4	-	49	-	26	5	-	-	9
N.C.	7	-	3	-	1	9	67	1	29	1	86	39	-	-	1
S.C.	7	-	274	-	-	3	46	3	19	-	18	2	-	-	3
Ga.	14	-	79	-	14	8	61	-	28	2	135	102	-	-	3
Fla.	42	-	369	-	7	115	113	2	54	2	66	71	-	11	30
E.S. CENTRAL	21	-	61	-	9	7	123	83	317	-	47	74	-	4	3
Ky.	6	-	-	-	6	5	30	-	6	-	5	9	-	4	3
Tenn.	1	-	55	-	1	1	37	83	306	-	16	28	-	-	-
Ala.	10	-	1	-	1	-	41	-	4	-	25	30	-	-	-
Miss.	4	-	5	-	1	1	15	-	1	-	1	7	-	-	-
W.S. CENTRAL	106	-	680	-	38	452	222	11	290	1	254	558	-	73	42
Ark.	1	-	276	-	2	-	30	-	61	-	20	17	-	1	1
La.	18	-	4	-	-	42	27	2	5	1	16	18	-	-	-
Okla.	12	-	37	-	2	1	33	N	N	-	129	172	-	-	2
Tex.	75	-	363	-	34	409	132	9	224	-	89	351	-	72	39
MOUNTAIN	41	-	303	-	29	541	112	5	263	1	282	241	-	24	6
Mont.	1	-	-	-	8	137	11	-	6	-	20	10	-	2	-
Idaho	1	-	1	-	-	137	4	-	9	-	51	28	-	-	2
Wyo.	-	-	-	-	-	5	2	-	-	-	4	1	-	1	-
Colo.	12	-	2	-	8	15	21	-	17	-	66	84	-	1	-
N. Mex.	5	-	33	-	7	6	13	N	N	1	29	14	-	-	2
Ariz.	15	-	252	-	6	241	24	5	205	-	65	41	-	2	1
Utah	4	-	13	-	-	-	10	-	15	-	43	53	-	15	-
Nev.	3	-	2	-	-	-	27	-	11	-	4	-	-	3	1
PACIFIC	465	13	604	-	65	440	478	13	380	6	513	457	2	262	201
Wash.	32	-	148	-	28	142	65	3	24	-	154	90	-	17	14
Oreg.	19	1	7	-	4	5	38	N	N	-	16	50	-	4	2
Calif.	413	12	422	-	31	269	349	10	324	5	307	270	2	235	136
Alaska	-	-	-	-	-	-	14	-	8	-	5	30	-	-	1
Hawaii	1	-	27	-	2	24	13	-	24	1	34	17	-	6	48
Guam	2	-	4	-	1	11	1	-	4	-	-	-	-	4	3
P.R.	4	-	44	-	-	67	4	-	34	-	19	16	-	62	27
V.I.	-	U	-	U	-	10	-	U	17	U	-	-	U	-	-
Pac. Trust Terr.	-	-	-	-	-	-	1	-	11	-	-	-	-	4	-
Amer. Samoa	-	-	2	-	-	-	-	-	5	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 20, 1986 and December 21, 1985 (51st Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	26,618	26,401	6	21,610	21,147	165	311	746	5,192
NEW ENGLAND	481	572	1	673	697	1	16	13	8
Maine	19	17	-	34	47	-	-	-	-
N H	13	40	-	23	23	-	-	2	1
Vt	9	7	-	17	8	-	-	-	2
Mass	263	281	-	378	405	1	13	4	-
R I	19	17	1	49	52	-	-	3	3
Conn	158	210	-	172	162	-	3	4	2
MID ATLANTIC	3,812	3,588	-	4,210	3,688	2	24	41	662
Upstate N Y	177	265	-	612	644	-	4	20	83
N Y City	2,184	2,159	-	2,191	1,811	-	11	6	-
N J	658	704	-	715	479	2	8	2	17
Pa	793	460	-	692	754	-	1	13	562
E N CENTRAL	823	948	-	2,531	2,592	1	23	46	142
Ohio	125	146	-	455	449	-	9	40	16
Ind	108	83	U	269	338	-	2	-	17
Ill	370	414	-	1,100	1,136	-	3	2	44
Mich	179	241	-	599	531	1	6	4	25
Wis	41	64	-	108	140	-	3	-	40
W N CENTRAL	204	231	-	630	612	48	9	52	808
Minn	33	45	-	150	123	-	2	1	132
Iowa	8	19	-	46	58	1	-	1	185
Mo	107	129	-	310	298	37	6	28	70
N Dak	5	2	-	10	10	-	-	1	152
S Dak	9	6	-	29	31	3	-	6	178
Nebr	11	8	-	17	18	1	-	5	37
Kans	31	22	-	68	74	6	1	10	54
S ATLANTIC	8,135	7,568	-	4,401	4,481	13	47	333	1,313
Del	60	39	-	47	51	-	1	1	1
Md	462	487	-	306	401	2	16	29	574
D C	293	333	-	160	157	1	4	-	36
Va	324	296	-	377	461	3	10	51	199
W Va	20	26	-	123	107	-	3	10	58
N C	525	676	-	674	622	3	4	129	10
S C	695	793	-	569	525	-	1	71	65
Ga	1,478	1,371	-	741	774	4	-	40	198
Fla	4,278	3,547	-	1,404	1,383	-	8	2	172
E S CENTRAL	1,737	2,023	2	1,914	1,838	16	4	111	360
Ky	68	65	2	439	455	7	-	22	105
Tenn	613	842	-	569	567	7	1	46	138
Ala	514	651	-	586	531	1	1	25	114
Miss	542	665	-	320	285	1	2	18	3
W S CENTRAL	5,062	6,184	2	2,775	2,682	68	34	139	708
Ark	253	315	-	385	333	49	-	16	162
La	896	1,065	-	392	388	1	3	1	22
Okla	150	194	2	251	248	13	2	103	61
Tex	3,763	4,610	-	1,747	1,713	5	29	19	463
MOUNTAIN	614	750	1	533	571	12	16	10	653
Mont	7	6	-	28	49	1	1	4	212
Idaho	16	7	-	26	25	-	-	2	9
Wyo	4	14	-	-	7	1	-	1	278
Colo	136	213	1	64	91	3	1	3	29
N Mex	68	126	-	102	89	2	1	-	6
Ariz	251	312	-	242	250	-	9	-	101
Utah	19	12	-	31	21	4	3	-	7
Nev	113	60	-	41	39	1	1	-	11
PACIFIC	5,750	4,537	-	3,943	3,98[illegible]	4	138	1	538
Wash	168	111	-	213	211	1	3	-	5
Oreg	121	110	-	122	131	-	-	-	1
Calif	5,415	4,242	-	3,372	3,364	2	128	1	524
Alaska	12	4	-	56	95	1	1	-	8
Hawaii	34	70	-	180	185	-	6	-	-
Guam	1	2	-	35	38	-	1	-	-
P R	849	869	-	340	342	-	5	-	47
V I	1	3	U	1	1	-	-	-	-
Pac Trust Terr	314	128	-	97	75	-	49	-	-
Amer Samoa	1	-	-	5	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending December 20, 1986 (51st Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	727	488	153	51	12	23	43
Boston, Mass	178	111	37	15	3	12	17
Bridgeport, Conn	61	41	16	3	1	-	1
Cambridge, Mass	32	27	3	2	-	-	3
Fall River, Mass	28	19	8	-	1	-	-
Hartford, Conn	87	55	20	6	3	3	1
Lowell, Mass	27	17	8	1	1	-	2
Lynn, Mass	20	15	4	1	-	-	2
New Bedford, Mass	29	25	3	1	-	-	-
New Haven, Conn	61	37	13	7	2	2	2
Providence, R I	59	43	10	3	-	3	8
Somerville, Mass	6	4	-	2	-	-	-
Springfield, Mass	50	30	12	5	1	2	4
Waterbury, Conn	34	25	5	3	-	1	3
Worcester, Mass	55	39	14	2	-	-	-
MID ATLANTIC	2,961	1,980	581	262	71	66	153
Albany, N Y	53	40	9	1	3	-	-
Allentown, Pa	20	20	-	-	-	-	-
Buffalo, N Y	90	61	20	4	-	5	6
Camden, N J	40	30	8	2	-	-	4
Elizabeth, N J	24	16	3	4	1	-	2
Erie, Pa †	53	38	7	5	2	1	1
Jersey City, N J	42	29	6	6	-	1	1
N Y City, N Y	1,597	1,044	311	171	40	31	79
Newark, N J	126	51	36	20	8	10	2
Paterson, N J	39	30	5	4	-	-	4
Philadelphia, Pa	399	265	93	28	9	4	19
Pittsburgh, Pa †	85	59	21	1	-	4	7
Reading, Pa	39	37	2	-	-	-	5
Rochester, N Y	131	98	18	8	2	5	9
Schenectady, N Y	27	15	5	5	1	1	1
Scranton, Pa †	39	33	5	-	1	-	3
Syracuse, N Y	72	55	12	-	2	3	7
Trenton, N J	32	19	11	1	1	-	1
Utica, N Y	27	23	3	1	-	-	-
Yonkers, N Y	26	17	6	1	1	1	2
E N CENTRAL	2,357	1,569	498	146	59	85	74
Akron, Ohio	61	42	12	2	1	4	-
Canton, Ohio	34	30	2	2	-	-	6
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	156	103	33	8	1	11	8
Cleveland, Ohio	171	106	43	9	4	9	6
Columbus, Ohio	179	115	43	8	9	4	5
Dayton, Ohio	108	67	28	5	4	4	-
Detroit, Mich	241	153	50	22	8	8	3
Evansville, Ind	46	36	7	2	1	-	1
Fort Wayne, Ind	58	43	9	4	1	1	-
Gary, Ind	16	8	3	3	1	1	-
Grand Rapids, Mich	52	40	7	1	3	1	5
Indianapolis, Ind	194	125	45	14	8	2	4
Madison, Wis	32	26	5	1	-	-	4
Milwaukee, Wis	145	92	33	8	3	9	3
Peoria, Ill	46	31	7	4	2	2	4
Rockford, Ill	47	35	6	2	1	3	2
South Bend, Ind	56	44	10	1	1	-	2
Toledo, Ohio	97	72	18	3	1	3	5
Youngstown, Ohio	54	39	12	2	-	1	-
W N CENTRAL	848	559	177	64	21	26	48
Des Moines, Iowa	58	42	8	3	2	2	4
Duluth, Minn	15	11	2	1	-	1	-
Kansas City, Kans	38	27	7	2	1	1	2
Kansas City, Mo	115	73	29	7	-	6	8
Lincoln, Nebr	38	27	7	4	-	-	-
Minneapolis, Minn	181	120	33	17	9	2	12
Omaha, Nebr	82	48	18	9	1	6	3
St Louis, Mo	182	113	46	14	3	6	10
St Paul, Minn	75	50	18	4	1	2	1
Wichita, Kans	64	48	9	3	4	-	8
S ATLANTIC	1,226	785	254	94	27	66	67
Atlanta, Ga	158	100	30	14	2	12	4
Baltimore, Md	172	96	46	13	5	10	10
Charlotte, N C	80	51	17	4	1	7	5
Jacksonville, Fla	119	79	24	7	1	8	11
Miami, Fla	108	68	25	9	3	3	3
Norfolk, Va	71	40	12	7	3	9	5
Richmond, Va	76	46	21	4	2	3	6
Savannah, Ga	46	28	7	7	3	1	7
St Petersburg, Fla	138	115	15	5	1	2	8
Tampa, Fla	69	44	14	3	3	5	3
Washington, D C	165	98	39	19	3	6	5
Wilmington, Del	24	20	2	2	-	-	-
E S CENTRAL	832	550	183	51	16	32	44
Birmingham, Ala	137	87	29	11	5	5	4
Chattanooga, Tenn	91	61	15	5	-	10	3
Knoxville, Tenn	75	51	17	5	2	-	4
Louisville, Ky	120	82	28	5	1	4	9
Memphis, Tenn	156	106	31	10	2	7	14
Mobile, Ala	74	48	21	1	1	3	4
Montgomery, Ala	34	20	9	4	1	-	-
Nashville, Tenn	145	95	33	10	4	3	6
W S CENTRAL	1,317	822	285	120	40	50	60
Austin, Tex	77	52	9	7	5	4	7
Baton Rouge, La	28	18	6	2	2	-	1
Corpus Christi, Tex	59	40	11	5	1	2	-
Dallas, Tex	205	116	49	26	4	10	8
El Paso, Tex	72	51	9	5	2	5	3
Fort Worth, Tex	95	61	18	6	4	6	5
Houston, Tex	288	156	80	37	8	7	9
Little Rock, Ark	54	39	10	2	-	3	5
New Orleans, La	73	50	15	5	2	1	-
San Antonio, Tex	176	109	41	14	7	5	5
Shreveport, La	74	56	14	2	1	1	6
Tulsa, Okla	116	74	23	9	4	6	8
MOUNTAIN	695	456	140	57	23	19	28
Albuquerque, N Mex	98	60	23	13	2	-	4
Colo Springs, Colo	34	18	9	1	4	2	7
Denver, Colo	117	89	17	8	-	3	3
Las Vegas, Nev	110	73	19	12	4	2	7
Ogden, Utah	23	12	7	-	1	3	1
Phoenix, Ariz	112	73	17	9	6	7	4
Pueblo, Colo	32	23	8	-	1	-	-
Salt Lake City, Utah	57	26	21	6	2	2	1
Tucson, Ariz	112	82	19	8	3	-	1
PACIFIC	1,988	1,337	385	173	39	45	138
Berkeley, Calif	26	22	2	2	-	-	3
Fresno, Calif	102	67	24	3	2	6	5
Glendale, Calif	25	20	3	2	-	-	2
Honolulu, Hawaii	87	52	24	5	1	5	5
Long Beach, Calif	105	80	17	5	2	1	20
Los Angeles, Calif	483	305	104	52	11	5	14
Oakland, Calif	80	55	19	2	2	2	2
Pasadena, Calif	30	20	5	1	-	4	3
Portland, Oreg	113	83	17	9	2	2	10
Sacramento, Calif	168	126	27	10	2	3	22
San Diego, Calif	151	100	27	17	3	2	15
San Francisco, Calif	167	89	34	32	5	6	5
San Jose, Calif	193	132	34	17	4	6	15
Seattle, Wash	160	114	28	14	2	2	4
Spokane, Wash	53	36	12	2	3	-	11
Tacoma, Wash	45	36	8	-	-	1	2
TOTAL	12,951††	8,546	2,656	1,018	308	412	655

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* Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

** Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages

§ Data not available. Figures are estimates based on average of past 4 weeks

Epidemiologic Notes and Reports

Regional Workshop on Dracunculiasis in Africa

The First Regional Workshop on Dracunculiasis (guinea-worm disease) in Africa was convened at the Palais des Congrés in Niamey, Niger, from July 1-3, 1986. Over 50 participants attended, including representatives of 14 of the 19 African countries affected (Benin, Burkina Faso, Cameroon, Chad, Côte d'Ivoire, Ethiopia, Guinea, Mali, Niger, Nigeria, Senegal, Sudan, Togo, and Uganda). The objectives of the workshop were to assist the affected member states in:

- reviewing the progress made to date in establishing a reasonable baseline for the necessary surveillance;
- clarifying the extent of the disease and its adverse socioeconomic impact;
- reviewing the various intervention measures and strategies available for guinea-worm control and their relative cost-effectiveness; and
- identifying areas in which specific research is required.

Significant new surveillance information was presented at the workshop. With the exception of Côte d'Ivoire, all the data on nationally reported incidence in Africa are based on passive surveillance. The following eight countries in the African Region reported surveillance information covering 1985: Burkina Faso, Cameroon, Côte d'Ivoire, Ethiopia, Mali, Mauritania, Togo, and Uganda. Although this represents an improvement over recent years, several countries are still not providing official reports.

Numerous qualitative, anecdotal examples of the negative socioeconomic effects of dracunculiasis were cited during the meeting. These included temporary disability lasting for months or even up to a year in some victims; permanent disability (unusual although not rare); sterility; frequent absenteeism from school; and substantial agricultural losses.

The disease is sporadically distributed over a wide band north of the equator from Mauritania to Ethiopia. Over 100 million people are now estimated to be at risk of contracting dracunculiasis in Africa alone, if one considers as being at risk any person living in a rural district or subprefecture where at least one case of the disease occurs.

Although dracunculiasis is officially reportable in at least eight of the countries affected (Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Ethiopia, Ghana, Togo, and Uganda), it is still vastly under-reported even in those countries.

Adapted from WHO Weekly Epidemiological Record 1986;61:321-4.

Editorial Note: At the time of this conference, eight of the 19 affected African countries (Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Niger, Nigeria, Togo, and Uganda) had dracunculiasis programs underway or planned. This meeting took place 6 weeks after the 39th World Health Assembly adopted a resolution calling for elimination of dracunculiasis. A second African regional meeting on this subject is to be held in Accra, Ghana, in 1988.

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	52nd Week Ending			Cumulative, 52nd Week Ending		
	Dec. 27, 1986	Dec. 28, 1985	Median 1981-1985	Dec. 27, 1986	Dec. 28, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	90	183	N	12,874	8,011	N
Aseptic meningitis	165	221	209	10,613	10,379	9,733
Encephalitis: Primary (arthropod-borne & unspec.)	18	35	40	1,213	1,320	1,540
Post-infectious	1	3	3	98	118	101
Gonorrhea: Civilian	13,134	13,646	14,160	884,235	883,826	898,104
Military	209	344	344	16,887	20,488	23,791
Hepatitis: Type A	378	654	727	22,703	23,169	23,169
Type B	386	755	755	25,452	26,528	24,482
Non A, Non B	58	95	N	3,435	4,081	N
Unspecified	73	114	156	4,339	5,755	7,251
Legionellosis	18	28	N	810	780	N
Leprosy	1	2	12	254	352	251
Malaria	14	26	30	1,080	1,034	1,034
Measles: Total*	20	77	48	6,236	2,812	2,579
Indigenous	20	74	N	5,933	2,373	N
Imported	-	3	N	297	439	N
Meningococcal infections: Total	49	68	86	2,443	2,425	2,729
Civilian	49	68	85	2,441	2,418	2,713
Military	-	-	-	2	7	14
Mumps	275	62	84	5,845	2,955	3,348
Pertussis	23	101	101	4,100	3,579	2,288
Rubella (German measles)	15	5	12	500	618	959
Syphilis (Primary & Secondary): Civilian	456	467	459	27,098	26,868	30,876
Military	1	7	7	161	163	361
Toxic Shock syndrome	5	9	N	345	367	N
Tuberculosis	532	997	864	22,149	22,144	23,840
Tularemia	1	3	11	166	178	288
Typhoid fever	11	22	22	322	403	420
Typhus fever, tick-borne (RMSF)	1	11	11	745	698	971
Rabies, animal	48	115	100	5,242	5,394	5,824

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1986		Cum. 1986
Anthrax	-	Leptospirosis	40
Botulism: Foodborne	18	Plague	10
Infant (Calif. 1)	70	Poliomyelitis, Paralytic	2
Other	1	Psittacosis (Oreg. 1, Calif. 1)	95
Brucellosis (Mass. 2, Ark. 1)	87	Rabies, human	-
Cholera	17	Tetanus	61
Congenital rubella syndrome	11	Trichinosis	32
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	48
Diphtheria	-		

*There were no cases of internationally imported measles reported for this week.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending December 27, 1986 and December 28, 1985 (52nd Week)

Reporting Area	AIDS	Aseptic Menin-gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel-losis	Leprosy
			Primary	Post-in-fectious			A	B	NA,NB	Unspeci-fied		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	12,874	165	1,213	98	884,235	883,826	378	386	58	73	18	254
NEW ENGLAND	492	-	32	3	24,121	22,540	12	30	2	8	-	8
Maine	20	-	4	-	847	1,147	-	1	-	-	-	-
N H	13	-	2	-	584	573	2	9	-	-	-	-
Vt	5	-	4	2	264	335	-	2	-	-	-	-
Mass	272	-	6	-	8,656	9,528	4	14	2	8	-	8
R I	34	-	-	-	1,866	1,843	-	-	-	-	-	-
Conn	148	-	16	1	11,904	9,114	6	4	-	-	-	-
MID ATLANTIC	4,728	16	114	10	156,937	129,038	-	12	1	16	1	20
Upstate N Y	494	3	39	6	18,978	18,178	-	10	1	1	-	1
N Y City	3,185	-	20	1	90,902	62,803	-	2	-	15	-	18
N J	745	10	11	-	20,277	19,592	-	-	-	-	1	-
Pa	304	3	44	3	26,780	28,465	-	-	-	-	-	1
E N CENTRAL	799	15	371	11	113,942	114,850	17	24	4	1	5	5
Ohio	188	9	140	3	29,992	31,737	5	8	2	-	3	-
Ind	67	U	82	3	12,131	12,504	U	U	U	U	U	-
Ill	363	-	50	4	26,236	26,172	6	2	-	-	-	4
Mich	139	6	65	1	37,928	33,516	6	14	2	1	2	1
Wis	42	U	34	-	7,403	10,921	U	U	U	U	U	1
W N CENTRAL	243	14	92	9	37,791	41,074	3	20	2	-	3	4
Minn	98	3	40	-	5,431	5,997	-	2	-	-	-	2
Iowa	20	-	29	-	3,865	4,302	2	3	-	-	-	-
Mo	73	11	3	-	18,665	19,993	-	14	2	-	-	-
N Dak	3	-	4	-	304	288	-	-	-	-	-	-
S Dak	2	-	11	-	774	790	-	1	-	-	3	-
Nebr	11	-	2	1	2,799	3,565	-	-	-	-	-	-
Kans	36	-	3	8	5,953	6,139	1	-	-	-	-	2
S ATLANTIC	1,857	10	154	40	229,384	231,555	21	83	7	4	4	4
Del	23	-	6	-	3,738	4,443	-	-	-	-	-	-
Md	180	-	36	1	27,095	29,589	3	23	4	-	-	-
D C	240	-	1	1	16,958	15,695	-	1	-	-	-	-
Va	157	2	43	1	18,787	19,734	2	11	-	2	-	1
W Va	8	-	46	-	2,232	2,598	2	1	-	1	1	-
N C	81	3	18	2	35,968	36,320	3	10	2	-	2	-
S C	50	-	-	-	19,054	21,326	-	8	-	-	-	-
Ga	285	1	-	1	38,212	44,723	1	11	1	1	1	-
Fla	833	4	4	34	67,340	57,627	10	20	-	-	-	3
E S CENTRAL	161	62	70	4	70,342	76,081	2	42	4	7	4	1
Ky	31	7	32	1	7,743	8,732	-	5	2	-	-	-
Tenn	73	3	8	1	26,504	29,534	-	15	-	-	-	-
Ala	29	42	29	2	20,786	22,506	2	14	2	1	3	1
Miss	28	10	1	-	15,309	15,309	-	8	-	1	1	-
W S CENTRAL	1,179	9	187	8	100,393	110,285	30	19	3	11	-	25
Ark	29	-	-	4	9,590	10,350	7	2	1	-	-	1
La	159	1	19	-	17,618	20,767	2	2	-	-	-	1
Okla	41	2	22	-	11,681	12,470	3	7	1	3	-	-
Tex	950	6	146	4	61,504	66,698	18	8	1	8	-	23
MOUNTAIN	342	4	40	1	25,716	28,022	57	31	2	6	1	13
Mont	5	-	1	1	669	795	1	1	-	-	-	-
Idaho	3	-	-	-	872	991	-	-	1	-	-	-
Wyo	4	-	2	-	535	648	-	-	1	-	-	-
Colo	166	-	5	-	6,599	8,110	9	5	-	5	-	3
N Mex	25	1	3	-	2,755	3,112	12	6	-	-	-	-
Ariz	81	3	19	-	8,219	8,576	31	13	-	1	1	7
Utah	21	-	8	-	1,115	1,349	1	1	-	-	-	1
Nev	37	-	2	-	4,952	4,441	3	5	-	-	-	2
PACIFIC	3,073	35	153	12	125,609	130,381	236	125	33	25	-	174
Wash	174	2	15	-	9,064	10,073	29	18	4	7	-	17
Oreg	63	-	-	-	5,387	6,367	43	21	12	-	-	-
Calif	2,768	30	130	12	107,474	109,081	159	83	17	18	-	118
Alaska	14	1	7	-	2,643	3,178	5	2	-	-	-	-
Hawaii	54	2	1	-	1,293	1,682	-	1	-	-	-	38
Guam	-	-	-	-	225	199	-	-	-	-	-	1
P R	115	U	5	1	2,343	3,076	U	U	U	U	U	7
V I	4	-	-	-	268	395	-	-	-	-	-	-
Pac Trust Terr	-	-	-	-	483	766	1	-	-	-	-	63
Amer Samoa	-	-	-	-	59	-	-	-	-	-	-	3

N Not notifiable U Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 27, 1986 and December 28, 1985 (52nd Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	1,080	20	5,933	-	297	2,812	2,443	275	5,845	23	4,100	3,579	15	500	618
NEW ENGLAND	65	-	88	-	16	126	170	2	72	4	183	216	-	9	14
Maine	2	-	12	-	1	1	29	-	-	-	2	9	-	-	-
N H	4	-	43	-	-	-	6	1	15	1	85	113	-	1	3
Vt	2	-	-	-	-	-	19	-	5	-	3	4	-	1	-
Mass	33	-	24	-	13	118	52	1	16	3	60	54	-	4	7
R I	8	-	2	-	-	-	23	-	13	-	7	23	-	2	-
Conn	16	-	7	-	2	7	41	-	23	-	26	13	-	1	4
MID ATLANTIC	148	-	1,940	-	37	236	388	1	218	2	224	271	-	37	234
Upstate N Y	54	-	77	-	24	86	137	1	76	2	143	134	-	27	21
N Y City	31	-	931	-	6	80	71	-	29	-	10	29	-	5	188
N J	37	-	906	-	5	30	30	-	53	-	20	12	-	5	11
Pa	26	-	26	-	2	40	150	-	60	-	51	96	-	-	14
E N CENTRAL	61	-	1,123	-	28	582	378	108	3,661	3	390	856	7	57	39
Ohio	19	-	-	-	10	60	149	7	150	3	170	120	-	1	-
Ind	2	U	27	U	11	57	39	U	90	U	38	216	U	-	1
Ill	16	-	705	-	4	346	86	73	2,670	-	39	86	-	39	20
Mich	20	-	107	-	-	60	79	28	468	-	36	54	7	15	17
Wis	4	U	284	U	3	59	24	U	283	U	108	380	U	2	1
W N CENTRAL	32	-	324	-	18	14	113	9	229	1	1,409	271	-	14	19
Minn	10	-	45	-	5	6	24	4	48	1	49	139	-	1	2
Iowa	1	-	133	-	1	-	11	3	87	-	19	34	-	1	1
Mo	12	-	26	-	6	5	41	1	27	-	24	35	-	1	7
N Dak	-	-	25	-	1	2	1	-	4	-	5	10	-	1	2
S Dak	2	-	-	-	-	-	5	-	1	-	14	11	-	-	-
Nebr	4	-	1	-	-	-	12	-	2	-	10	11	-	-	-
Kans	3	-	94	-	5	1	19	1	60	-	1,288	31	-	10	7
S ATLANTIC	132	18	808	-	57	344	437	3	261	3	784	571	-	12	56
Del	1	-	1	-	-	-	8	-	1	-	227	2	-	-	2
Md	14	-	26	-	9	115	50	-	31	-	167	328	-	1	6
D C	5	-	-	-	2	31	6	-	1	-	-	-	-	-	-
Va	37	-	36	-	24	28	78	-	46	-	56	21	-	-	2
W Va	4	-	2	-	-	33	4	-	49	1	27	5	-	-	9
N C	7	-	3	-	1	9	67	-	29	2	88	39	-	-	1
S C	7	-	274	-	-	3	46	-	19	-	18	3	-	-	3
Ga	14	-	79	-	14	8	63	-	28	-	135	102	-	-	3
Fla	43	18	387	-	7	117	115	3	57	-	66	71	-	11	30
E S CENTRAL	22	-	61	-	9	7	124	13	330	-	47	74	-	4	3
Ky	6	-	-	-	6	5	31	-	6	-	5	9	-	4	3
Tenn	1	-	55	-	1	1	37	13	319	-	16	28	-	-	-
Ala	10	-	1	-	1	-	41	-	4	-	25	30	-	-	-
Miss	5	-	5	-	1	1	15	-	1	-	1	7	-	-	-
W S CENTRAL	107	-	680	-	38	493	228	126	416	-	254	575	-	73	42
Ark	1	-	276	-	2	-	31	123	184	-	20	17	-	1	1
La	19	-	4	-	-	42	28	2	7	-	16	18	-	-	-
Okla	12	-	37	-	2	1	33	N	N	-	129	182	-	-	2
Tex	75	-	363	-	34	450	136	1	225	-	89	358	-	72	39
MOUNTAIN	42	-	303	-	29	541	113	3	266	-	282	272	-	24	6
Mont	1	-	-	-	8	137	11	-	6	-	20	10	-	2	-
Idaho	1	-	1	-	-	137	4	-	9	-	51	30	-	-	2
Wyo	-	-	-	-	-	5	2	-	-	-	4	1	-	1	-
Colo	13	-	2	-	8	15	22	1	18	-	66	107	-	1	-
N Mex	5	-	33	-	7	6	13	N	N	-	29	15	-	-	2
Ariz	15	-	252	-	6	241	24	1	206	-	65	49	-	2	1
Utah	4	-	13	-	-	-	10	1	16	-	43	60	-	15	-
Nev	3	-	2	-	-	-	27	-	11	-	-	-	-	3	1
PACIFIC	471	2	606	-	65	469	492	12	392	10	527	473	8	270	205
Wash	33	-	148	-	28	171	67	2	26	3	161	92	-	17	16
Oreg	19	-	7	-	4	5	38	N	N	-	16	54	-	4	2
Calif	418	2	424	-	31	269	359	10	334	5	312	278	7	242	138
Alaska	-	-	-	-	-	-	14	-	8	-	5	30	-	-	1
Hawaii	1	-	27	-	2	24	15	-	24	2	35	19	1	7	48
Guam	2	-	4	-	1	11	1	-	4	-	-	-	-	4	3
P R	4	U	44	U	-	67	4	U	34	U	19	16	U	62	27
V I	-	-	-	-	-	10	-	1	18	-	-	-	-	-	-
Pac Trust Terr	-	-	-	-	-	-	1	-	11	-	-	-	-	4	-
Amer Samoa	-	-	2	-	-	-	-	-	5	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations

N Not notifiable U Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 27, 1986 and December 28, 1985 (52nd Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tularemia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	27,098	26,868	5	22,149	22,144	166	322	745	5,242
NEW ENGLAND	487	588	-	678	744	1	16	13	8
Maine	19	17	-	34	47	-	-	-	-
N.H.	13	41	-	23	23	-	-	2	1
Vt.	9	8	-	17	8	-	-	-	2
Mass.	264	286	-	379	449	1	13	4	-
R.I.	19	20	-	49	53	-	-	3	3
Conn.	163	216	-	176	164	-	3	4	2
MID. ATLANTIC	3,891	3,636	-	4,310	3,890	2	26	41	666
Upstate N.Y.	201	271	-	613	661	-	5	20	84
N.Y. City	2,205	2,190	-	2,271	1,909	-	11	6	-
N.J.	680	706	-	720	549	2	9	2	17
Pa.	805	469	-	706	771	-	1	13	565
E.N. CENTRAL	838	978	-	2,600	2,667	1	23	44	142
Ohio	125	146	-	463	459	-	9	38	16
Ind.	108	83	U	269	336	-	2	-	17
Ill.	384	429	-	1,138	1,193	-	3	2	44
Mich.	180	254	-	622	537	1	6	4	25
Wis.	41	66	U	108	142	-	3	-	40
W.N. CENTRAL	206	236	2	640	650	48	9	53	827
Minn.	33	45	2	151	132	-	2	1	145
Iowa	8	20	-	46	60	1	-	1	187
Mo.	109	133	-	318	311	37	6	29	71
N. Dak.	5	2	-	10	12	-	-	1	153
S. Dak.	9	6	-	29	31	3	-	6	178
Nebr.	11	8	-	18	22	1	-	5	37
Kans.	31	22	-	68	82	6	1	10	56
S. ATLANTIC	8,281	7,723	-	4,542	4,700	13	47	333	1,320
Del.	62	41	-	47	53	-	1	1	1
Md.	471	501	-	306	418	2	16	29	574
D.C.	294	336	-	182	157	1	4	-	38
Va.	324	296	-	388	488	3	10	51	199
W. Va.	20	28	-	123	109	-	3	10	60
N.C.	533	682	-	731	654	3	4	129	10
S.C.	696	794	-	590	568	-	1	71	65
Ga.	1,507	1,399	-	741	828	4	-	40	201
Fla.	4,374	3,648	-	1,454	1,425	-	8	2	172
E.S. CENTRAL	1,801	2,069	1	1,941	1,925	16	4	111	361
Ky.	69	65	-	439	463	7	-	22	106
Tenn.	634	645	-	581	576	7	1	46	138
Ala.	516	651	1	601	531	1	1	25	114
Miss.	582	708	-	320	355	1	2	18	3
W.S. CENTRAL	5,088	6,206	1	2,848	2,759	69	34	139	720
Ark.	255	319	-	393	362	50	-	16	163
La.	917	1,076	-	433	388	1	3	1	22
Okla.	153	201	-	252	259	13	2	103	62
Tex.	3,763	4,610	1	1,770	1,750	5	29	19	473
MOUNTAIN	644	772	-	546	625	12	16	10	658
Mont.	7	6	-	29	50	1	1	4	216
Idaho	16	8	-	25	26	-	-	2	9
Wyo.	4	14	-	-	8	1	-	1	279
Colo.	141	215	-	68	106	3	1	3	29
N. Mex.	74	126	-	103	94	2	1	-	6
Ariz.	268	325	-	249	271	-	9	-	101
Utah	21	13	-	31	31	4	3	-	7
Nev.	113	65	-	41	39	1	1	-	11
PACIFIC	5,862	4,660	1	4,044	4,184	4	147	1	540
Wash.	168	115	-	215	220	1	3	-	5
Oreg.	127	111	-	134	139	-	-	-	1
Calif.	5,531	4,360	1	3,446	3,526	2	137	1	526
Alaska	2	4	-	65	110	1	1	-	8
Hawaii	34	70	-	184	189	-	6	-	-
Guam	1	2	-	35	38	-	1	-	-
P.R.	849	875	U	340	342	-	5	-	47
V.I.	1	3	-	1	6	-	-	-	-
Pac. Trust Terr.	314	128	-	97	75	-	49	-	-
Amer. Samoa	1	-	-	5	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending December 27, 1986 (52nd Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	594	410	111	36	16	20	57
Boston, Mass	143	80	37	14	4	7	24
Bridgeport, Conn	53	40	9	2	1	1	4
Cambridge, Mass	33	29	2	2	-	-	4
Fall River, Mass	16	13	3	-	-	-	-
Hartford, Conn	47	33	8	3	1	2	1
Lowell, Mass	20	16	3	1	1	-	1
Lynn, Mass	20	15	4	1	-	-	2
New Bedford, Mass	29	22	5	2	-	-	-
New Haven, Conn	39	24	9	4	1	1	2
Providence, R I	54	37	10	-	3	4	5
Somerville, Mass	9	8	1	-	-	-	2
Springfield, Mass	38	24	9	1	2	2	4
Waterbury, Conn	24	17	3	2	2	-	1
Worcester, Mass	69	53	8	4	1	3	7
MID ATLANTIC	2,415	1,586	505	225	46	54	120
Albany, N Y	57	30	15	6	1	5	-
Allentown, Pa	33	33	-	-	-	-	3
Buffalo, N Y	134	87	29	9	4	5	9
Camden, N J	27	18	5	1	2	1	-
Elizabeth, N J	36	24	6	6	-	-	1
Erie, Pa †	45	31	9	2	1	2	4
Jersey City, N J	43	23	10	6	-	4	2
N Y City, N Y	1,352	868	297	139	27	21	65
Newark, N J	54	18	14	15	4	3	1
Paterson, N J	33	20	7	5	1	-	4
Philadelphia, Pa	196	131	44	15	3	3	7
Pittsburgh, Pa †	15	7	7	1	-	-	-
Reading, Pa	41	37	4	-	-	-	6
Rochester, N Y	106	73	22	9	2	-	8
Schenectady, N Y	28	27	1	-	-	-	2
Scranton, Pa †	37	32	5	-	-	-	3
Syracuse, N Y	93	70	11	3	1	8	3
Trenton, N J	35	20	11	4	-	-	1
Utica, N Y	20	16	4	1	-	-	-
Yonkers, N Y	30	21	4	3	-	2	1
E N CENTRAL	2,130	1,408	474	143	40	65	86
Akron, Ohio	94	59	23	9	-	3	5
Canton, Ohio	38	26	9	-	1	2	4
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	96	58	28	7	2	1	13
Cleveland, Ohio	134	83	33	10	5	3	3
Columbus, Ohio	172	101	44	15	5	7	6
Dayton, Ohio	83	66	12	-	2	3	3
Detroit, Mich §	256	159	56	25	8	8	5
Evansville, Ind	33	23	8	1	-	1	1
Fort Wayne, Ind	44	36	7	1	-	-	1
Gary, Ind	6	4	1	1	-	-	1
Grand Rapids, Mich	62	43	13	6	-	-	2
Indianapolis, Ind	134	93	32	4	2	3	2
Madison, Wis §	38	27	8	2	-	1	5
Milwaukee, Wis	103	71	23	4	1	4	4
Peoria, Ill	35	22	9	2	1	1	3
Rockford, Ill	44	34	8	1	-	1	2
South Bend, Ind	35	25	4	3	2	1	5
Toledo, Ohio	97	72	18	3	1	3	5
Youngstown, Ohio	62	44	13	4	-	1	-
W N CENTRAL	837	569	165	57	24	22	45
Des Moines, Iowa	72	54	13	3	1	1	4
Duluth, Minn	27	21	4	2	-	-	-
Kansas City, Kans	33	21	5	1	3	3	1
Kansas City, Mo	133	92	27	6	7	1	9
Lincoln, Nebr	23	17	5	-	1	-	2
Minneapolis, Minn	255	174	44	30	2	5	10
Omaha, Nebr	71	50	12	1	4	4	5
St Louis, Mo	124	76	29	12	3	4	10
St Paul, Minn	41	29	9	1	-	2	1
Wichita, Kans	58	35	17	1	3	2	3
S ATLANTIC	1,120	687	266	96	36	34	49
Atlanta, Ga §	144	91	33	12	4	4	3
Baltimore, Md	251	158	56	20	10	7	11
Charlotte, N C	61	40	12	5	2	2	6
Jacksonville, Fla	52	37	12	1	2	-	5
Miami, Fla	85	42	22	12	4	5	1
Norfolk, Va	34	19	9	1	3	2	2
Richmond, Va	67	41	18	7	1	-	2
Savannah, Ga	40	29	10	-	1	-	6
St Petersburg, Fla	96	72	20	2	1	1	6
Tampa, Fla	47	25	12	4	1	4	2
Washington, D C §	212	111	56	29	7	9	5
Wilmington, Del	31	22	6	3	-	-	-
E S CENTRAL	622	405	150	34	15	18	33
Birmingham, Ala	128	84	28	7	3	6	2
Chattanooga, Tenn	48	35	9	3	-	1	4
Knoxville, Tenn	67	45	17	1	3	1	4
Louisville, Ky	67	37	18	4	3	5	3
Memphis, Tenn	152	106	31	10	2	3	12
Mobile, Ala	60	32	20	5	3	-	3
Montgomery, Ala	34	26	7	1	-	-	2
Nashville, Tenn	66	40	20	3	1	2	3
W S CENTRAL	923	557	227	70	32	37	36
Austin, Tex	36	22	6	4	3	1	2
Baton Rouge, La	39	22	12	1	2	2	3
Corpus Christi, Tex	32	25	5	1	-	1	2
Dallas, Tex	161	86	39	26	3	7	1
El Paso, Tex	37	23	11	2	-	1	1
Fort Worth, Tex	75	46	18	4	2	5	4
Houston, Tex	170	98	44	18	7	3	4
Little Rock, Ark	57	32	19	1	1	4	4
New Orleans, La	69	43	12	3	6	5	2
San Antonio, Tex	152	95	33	9	7	8	9
Shreveport, La	60	41	19	-	-	-	3
Tulsa, Okla	35	24	9	1	1	-	1
MOUNTAIN	570	347	131	50	25	16	42
Albuquerque, N Mex	62	33	14	13	-	2	2
Colo Springs, Colo	34	18	8	2	4	2	3
Denver, Colo	88	59	19	4	6	-	6
Las Vegas, Nev	99	57	26	10	2	3	8
Ogden, Utah	24	18	5	1	-	-	5
Phoenix, Ariz	127	73	27	12	10	5	9
Pueblo, Colo	16	10	4	1	1	-	1
Salt Lake City, Utah	32	20	5	3	2	2	-
Tucson, Ariz	88	59	23	4	-	2	8
PACIFIC	1,750	1,208	306	133	57	39	98
Berkeley, Calif	20	16	2	2	-	-	1
Fresno, Calif	67	42	10	11	3	1	3
Glendale, Calif	34	28	2	3	-	1	1
Honolulu, Hawaii	52	33	11	6	-	2	1
Long Beach, Calif	84	65	6	4	3	6	13
Los Angeles, Calif	474	327	88	33	16	5	18
Oakland, Calif	51	34	12	2	2	1	3
Pasadena, Calif §	27	22	3	1	-	1	1
Portland, Oreg	150	97	28	16	4	5	10
Sacramento, Calif	127	94	20	4	6	3	13
San Diego, Calif	94	66	16	6	3	3	7
San Francisco, Calif	158	99	28	24	4	1	6
San Jose, Calif	146	95	26	10	11	4	7
Seattle, Wash	167	117	35	9	3	3	4
Spokane, Wash	56	40	10	1	2	3	7
Tacoma, Wash	43	33	9	1	-	-	3
TOTAL	10,961††	7,176	2,335	844	291	305	566

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* Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

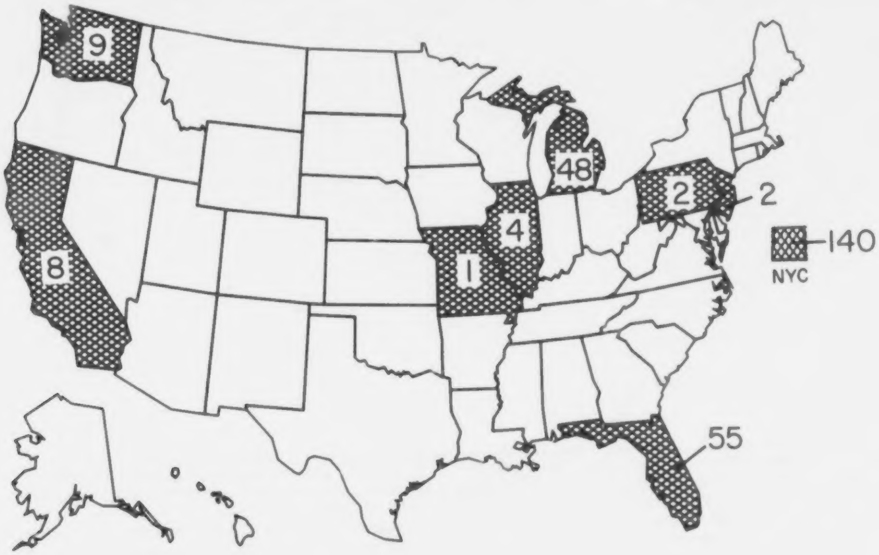
** Pneumonia and influenza

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages

§ Data not available. Figures are estimates based on average of past 4 weeks

FIGURE IV. Reported measles cases — United States, weeks 47-50, 1986


9
48
2
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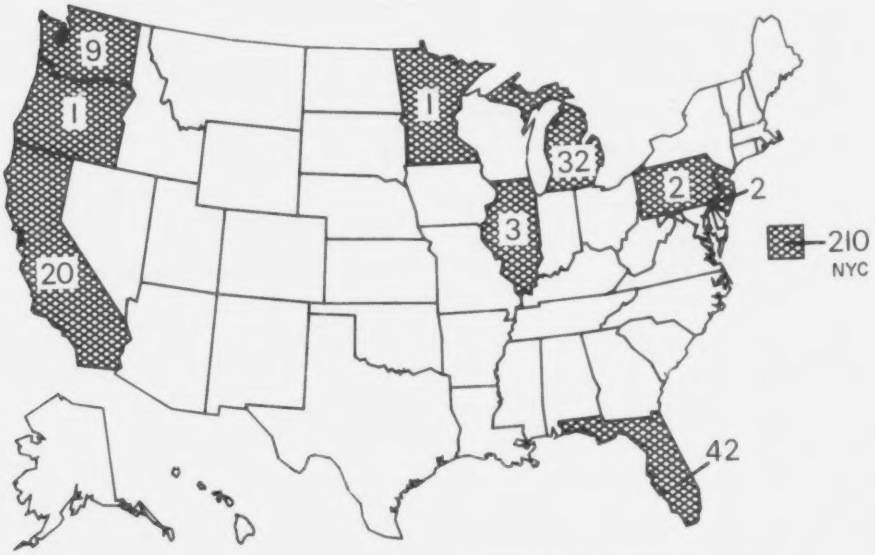
140
NYC
4
1
8
55

FIGURE IV. Reported measles cases — United States, weeks 48-51, 1986


9
1
1
32
2
2
210
NYC
3
20
42
CASES REPORTED
NO REPORTED CASES

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The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report,* Centers for Disease Control, Atlanta, Georgia 30333.

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